Correlates of
Tertiary Student Life Satisfaction

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Jerode R. Raman

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Abstract

What determines life satisfaction for young people? Many studies have looked at factors that correlate with an individual's level of life satisfaction however the vast majority of those studies focused on elderly populations. The aim of this study was to explore the relationships of a number of research variables with life satisfaction for a tertiary student population. The relationships would be determined by correlating the research variables with life satisfaction. General intelligence, romantic relationship, academic goals, academic performance, health status, religiosity and social contact were measured, and correlated with life satisfaction. The sample in the current study comprised 129 undergraduate students from the University of Waikato. It was found that general intelligence, religiosity and social contact did not have any significant correlations with any of the other research variables, including life satisfaction. Romantic relationship, academic goals, academic performance and health status were found to have a significant positive correlation with life satisfaction. Success in a select group of life domains had a significant positive correlation with life satisfaction for undergraduate tertiary students. Having a successful romantic relationship, focusing on academic activities and being in good physical health all correlated positively with life satisfaction for undergraduate tertiary students. Practical implications of the results as well as future research possibilities are discussed.

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Table of Contents

Page

List of Figures

Page

List of Tables

Chapter One

Introduction

Healthy and happy, money can't buy happiness and ignorance is bliss, are but a few proverbs that deal with aspects of what determines happiness or satisfaction. There has been a large amount of research on life satisfaction and variables that affect life satisfaction for older population groups, including Ho, Woo, Lan, Chan, Yuan, and Chan (1995). Whilst there have been several surveys that have focused on retired or elderly populations, the same cannot be said for younger population groups and the factors that correlate with their life satisfaction levels. The current research examined the relationships between life satisfaction and several research variables, and the relationship with an individual's level of general intelligence. The aim of this study was to test a theoretical model that included the relationship between life satisfaction and a number of other research variables that had been selected based on both significant correlations in previous research, and theoretical rationale, for a young population group that were in tertiary study. A secondary aim was to examine the differences between the results of this study of a young sample population to the findings of previous research which focused on older populations.

This thesis examines the relationships between romantic relationship, academic goals, academic performance, health status, religiosity, social contact and the level of an individual's general intelligence with life satisfaction for tertiary students. The aim of the present study was to establish a model for life satisfaction for a young population group, as this is a demographic of the general population that has had little focus in previous research.

This set of variables was chosen from all the potential variables to correlate with life satisfaction because they have been shown to be significantly correlated with life satisfaction in a number of previous studies, including Ho et al. (1995) and Stone, Wong, & Lo (2000). The research variables that were chosen for the current study were also selected because of theoretical logic that will be discussed for their expected associations.

In this model (Figure 1), general intelligence is predicted to have a positive relationship with life satisfaction. Individuals with a high level of general intelligence may be more successful when they participate in learning, social activities or attain a job that they find challenging, which may result in higher levels of overall satisfaction. This may be because higher cognitive ability may give individuals the ability to perform at a higher rate and achieve more than individuals with lower cognitive ability. It may be that success/achievement in multiple life domains is the link between general intelligence and life satisfaction. General intelligence is not theorised to have a direct link with life satisfaction, rather general intelligence may have an influence on success in many life domains which then results in higher levels of life satisfaction.

The introduction is presented in nine sections. The first section discusses the model (Figure 1) in general and gives an overview of the predicted relationships between the research variables. Sections two to eight discuss the research variables in greater detail as well as previous research. Finally, section nine provides a summary of the hypotheses.

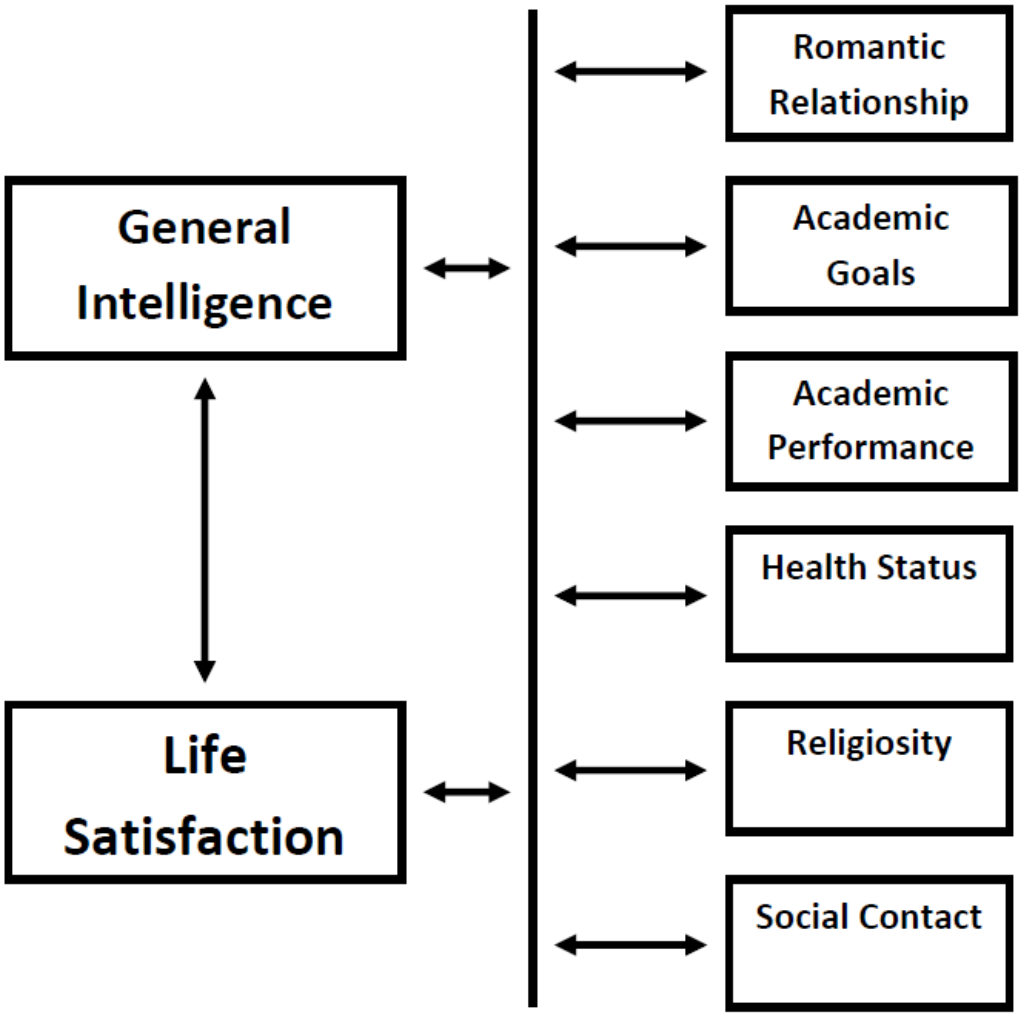

Figure1: Proposed model of the correlation relationships between research variables.

All depicted relationships are predicted to be positive, except for the relationship between general intelligence and religiosity, which is predicted to be negative.

Model overview

The primary (major) predicted relationship is that the higher the level of general intelligence, the higher the satisfaction with life level. Oden (1968) concluded that a higher level of intelligence enables gifted individuals to adapt, which in turn is related to their ability to find happiness. In essence, Oden's explanation was that intelligence gives individuals the ability to engage in

activities and be successful, which may lead to higher levels of happiness. Oden found a positive correlation between intelligence and happiness. Happiness and life satisfaction are related constructs (Peterson, Park, & Seligman, 2005). Happiness was not chosen as the focus for this study because it is easily effect by short term circumstance, happiness levels can change rapidly, and there is no measure of happiness that has been used consistently by a large number of different studies, instead each study usually uses its own definition of happiness (Michalos, Kammann, Farry, & Herb, 2005). Instead of happiness, life satisfaction was chosen because it is a construct that is more stable over long periods of time, and the Satisfaction With Life Scale has been used by a large number of studies over a long period of time since the establishment of the measure in the mid nineteen eighties (Diener & Pavot, 2009).

An individual with high levels of general intelligence is proposed to have a greater ability to achieve their goals in all areas of both their personal and professional lives. It may be that the higher the general intelligence level, the greater the ability to attain successful social relationships and the ability to pursue and achieve personal as well as professional goals. This may allow an individual to attain greater overall life satisfaction than an individual who cannot achieve their goals because of a lower general intelligence level. The over arching theory behind the prediction of positive correlations for all of the research variables with general intelligence is that high general intelligence gives individuals the ability to be successful in all other life domains, and success in other life domains leads to higher levels of life satisfaction. The only exception to this rationale is the relationship between religiosity and general intelligence which is expected to be negative, this is because the religiosity research variable measures strength of faith not success or achievement.

Jones (2006) found that higher cognitive ability gave individuals the ability to conduct complex tasks more effectively than individuals with lower levels of cognitive ability. This increased baseline ability may lead to a greater level of success in a number of different activities. The justification for the expected relationship of a positive correlation between general intelligence and life satisfaction is that general intelligence gives individuals the competency and ability to be successful, which in turn leads to increased levels of life satisfaction, thus the higher the general intelligence level, the higher the life satisfaction level. This justification is echoed by Lyumbomirsky, King and Diener (2005), who found that happy individuals were successful across multiple life domains. Intelligence level has a negative correlation with what society considers bad behaviour (truancy, criminal convictions) and a positive correlation with good behaviour (attendance, achievement) (Halpern, Joyner, Udry, & Suchindran, 2000). Good behaviour will be met with positive reinforcement which may lead to greater levels of happiness, positive affect and life satisfaction.

There has been very little research conducted on the relationship between romantic relationship and intelligence level. In an exhaustive search of popular databases, such as PSYCarticles, there were no published studies, with the exception of an older article by Knight (1959). General intelligence is the umbrella term for the broadest type of intelligence that is comprised of other more specific definitions of intelligence such as emotional, analytic, creative and practical intelligence (Furnham & Petrides, 2004). The idea that general intelligence encompasses emotional intelligence was also concluded by Antonakis (1993), who stated that the inclusion of emotional intelligence did not offer any greater prediction ability than general intelligence alone. The romantic relationship variable may be positively correlated with general intelligence

because individuals with a higher level of general intelligence may be more competent in finding a romantic partner with whom they are highly compatible. High intelligence level has a positive correlation with both the quality and longevity of relationships (Knight, 1959). Individuals with higher levels of general intelligence may also be able to maintain romantic relationships for longer periods of time, because they are better able to work through issues and problems within the relationship. Higher levels of general intelligence may result in individuals not beginning and continuing relationships that have issues that are serious enough to cause strain and discord in the future. Individuals with higher levels of general intelligence may be able to more easily work through problems and will not get involved with a partner who will not satisfy their expectations, which may lead to more successful relationships overall.

Snyder and Lopez (1999) found a positive correlation between happiness and the likelihood of being in a successful romantic relationship. Being in a successful relationship may lead to short term happiness, which in the long term may lead to higher rates of life satisfaction. The reverse relationship may also be true, in that greater life satisfaction may lead an individual to be generally more positive and agreeable, which may lead to a more successful relationship. If an individual is happy within themselves, they may be more pleasant toward and accepting of their partner, which may lead to a higher score on the romantic relationship research variable.

The theoretical model for this research (Figure 1) predicts that academic goals will have a positive correlation with general intelligence. Berry and West (1993) found that critical thinking ability was significantly correlated with goal setting. Setting and achieving goals are activities that may be more likely to be

engaged in by individuals who are successful, because these individuals are actively engaged with their goals and ambitions. This research predicts that individuals who keep track of their goals (have a high academic goal score) are more likely to be more intelligent than individuals who do not set and pursue goals. Goal setting and feedback lead to higher levels of satisfaction in individuals (Kim, 1984). Achieving a goal may intrinsically bring a feeling of satisfaction. It is expected that individuals who set and achieve goals may be likely to feel greater levels of satisfaction, which may spill over into life satisfaction.

Academic performance is likely to be positively correlated with general intelligence because the ability to learn new information, retain the information and use the information in an examination situation/environment will be greatly aided by the individual's level of general intelligence. A higher degree of general intelligence will give an individual the ability to achieve at a higher level academically; however, this rationale does ignore the motivation and effort of the individual which may also greatly impact on academic success.

Baumeister, Campbell, Krueger, and Vohs (2008) found that for a sample of secondary school students, satisfaction was partially a result of high academic performance. Conversely, efforts to boost the self-esteem of students did not result in an improvement in academic performance. Higher levels of performance may lead to feelings of achievement, which in turn may be associated with increased satisfaction. In the current research, academic performance and academic goals are believed to be closely related. Participants who took part in this research were all undergraduate tertiary students, who were at the time of the study enrolled at the University of Waikato. In this sample of undergraduate students, achieving highly academically is essentially achieving an academic goal

which may lead to happiness. This short term happiness may be transformed into life satisfaction over time.

The research model (Figure 1) predicts that health status will be positively correlated with general intelligence, because a high level of intelligence may imply that individuals may have knowledge on the appropriate foods to eat and amount of exercise to maintain their health. Gottfredson and Deary (2004) found that intelligence level had a significant negative correlation with morbidity and mortality. They concluded that higher cognitive ability enhanced individual's care of their own health, preventing chronic diseases such as heart disease and accidental injuries.

Lohr, Essex, and Klein (1988) found that, among a population of woman, physical health level had a significant positive correlation with life satisfaction. Health status is also likely to be positively correlated with life satisfaction, because healthy individuals are likely to exercise regularly. Exercise releases endorphins in the brain, which results in short term happiness (Taylor et al., 1994). This short term chemically induced happiness over time may lead to long term life satisfaction. Exercise will often lead to an individual becoming more physically fit, which may lead to a more positive self image and/or greater self esteem, which may increase life satisfaction levels for that individual. Conversely, individuals with poor health status are likely to be exposed to many bouts of short term pain, caused by injury and chronic disease, which may lead to negative affect, which over time will lower their life satisfaction. Ho et al. (1995) found a positive correlation between health status and satisfaction level. Based on previous research it was expected that there would be a positive correlation between life satisfaction and level of health status.

Lynn, Harvey and Nyborg (1998) found a significant negative correlation between level of religiosity and intelligence level. The present model (Figure 1) predicts that religiosity will be negatively correlated with general intelligence because individuals involved in rigorous religious belief may be more likely to believe all the tenets of a given religion, even those that are widely regarded as false by current scientific thought and the general public e.g. the biblical account that the age of the earth is roughly six thousand years old. Perhaps the more intelligent an individual is, the more they may question inconsistencies in their given religion and over time their level of commitment and fervent belief may diminish. A popular counter argument is that intelligent individuals find specific analogies, arguments and examples of inconsistencies in science to justify inconsistencies in theological scripture (Dawkins, 2006). Another explanation for intelligent individuals who strongly believe in a god is that they simply separate their faith from a reasoned thought process, believing that the two areas are completely different and cannot be reconciled (Dawkins, 2006). Theological faith by definition requires no proof.

Levin, Chatters and Taylor (1995a) found a significant positive correlation between religiosity and satisfaction. Religiosity is predicted to be positively correlated with life satisfaction; this is because religion is likely to be closely related to social contact. Individuals who are involved in a church will likely be meeting with like-minded individuals at least once a week. This positive social contact, and relationships with large numbers of supportive individuals, may lead to a higher level of life satisfaction. The higher the level of religious commitment and belief the higher the satisfaction level of individuals (Ellison, 1991). At first glance this hypothesis does not appear to align with the expected relationship between general intelligence and life satisfaction, because if general intelligence

has a positive relationship with life satisfaction and religiosity has a negative relationship with general intelligence, it follows that religiosity should have a negative relationship with life satisfaction. A possible explanation may be that the social contact with like minded, supportive individuals is what leads to higher life satisfaction not the actual belief in specific religious rhetoric. It may have been easier to theoretically justify a prediction of a negative relationship between life satisfaction and religiosity however the overwhelming majority of previous research reviewed (e.g. (Levin et al., 1995a)) would not support that hypothesis. This is why there is expected to be a positive correlation between religiosity and life satisfaction.

Despite an extensive search of popular online databases, such as PSYCarticles, I was unable to locate any previous research that included information about the relationship between general intelligence and social contact. Social contact may be positively related to general intelligence because individuals with higher general intelligence levels may be more likely to be involved in activities and able to maintain a larger number of positive relationships over a longer period of time. This was theorised based on Jones (2006) who concluded that high cognitive ability allows individuals to be successful at a wide variety of complex tasks such as behaviours necessary to establish and maintain romantic relationships. It is likely that the social contact factor in this study is related to the romantic relationship factor, because if an individual is involved in a romantic relationship they are likely to have social contact with at least one other individual. A counter argument is that highly intelligent individuals may find themselves involved with their work or personal interests so may in fact end up spending large amounts of time by themselves pursuing their own personal goals. They may in fact choose to limit the number of

people they socialise with or have no choice but to remove themselves from social contact because of time commitments with their other interests and activities. The model (Figure 1) predicts a positive correlation between social contact and general intelligence.

Halpern, Joyner, Udry and Suchindran (2000) found that intelligence level had a significant negative correlation with acquiescence, crime, delinquency, truancy and out-of-wed-lock births. Halpern et al. also found that intelligence level was positively correlated with moral reasoning and development, and social skills. High performance in regard to social skills may give individuals the ability/potential to be more successful at the romantic relationship and social contact research variables. Jones (2006) found that higher baseline cognitive ability affords individuals the potential to conduct complex tasks more effectively than individuals with lower intelligence levels. In the present study, general intelligence was expected to have a positive correlation with all of the other research variables (with the exception of religiosity which was expected to have a negative relationship based on previous research). The theoretical reason for the predicted relationships is that general intelligence gives individuals the underlying potential and ability to achieve highly in a number of life domains. Religiosity is the only research variable that is not measured in terms of success; it is measured in strength of belief. The over arching theory behind all the expected relationships is that general intelligence gives individuals the potential to be successful, with success comes life satisfaction. The fact that the religiosity research variable is not measured in terms of success is the reason that general intelligence is not expected to be positively correlated with it, because a high general intelligence level offers no advantage in achieving a high degree of religiosity. This is the reason why the correlation between religiosity and general intelligence is the only relationship

that is expected to be negative based on conclusions of previous research and because religiosity is not a measure based on success.

General intelligence

There are a large number of studies that have dealt with the relationship between intelligence and life satisfaction. Gannon and Ranzijn (2005) found that there was no significant correlation between intelligence and life satisfaction. The same conclusion was reached by Palmore and Luikart (1972). Looking at previous studies as a whole, a few studies are equally distributed between a weak positive correlation and a weak negative correlation, with the majority of studies finding that there is no correlation at all. If the hypothesis for the relationship between general intelligence and life satisfaction was based solely on previous research such as Gannon and Ranzijn, the expected relationship for this study could be that there is no correlation between general intelligence and life satisfaction. However, the rationale behind the current model (Figure 1) is constructed on the idea that success is what leads to life satisfaction and general intelligence gives individuals the ability to be successful.

There are a few studies that focus on life satisfaction and intelligence, such as Oden (1968), who found a significant positive correlation between intelligence level and happiness. Although the Oden study is older, Jones (2006) concluded in a more recent study that baseline cognitive ability gave individuals the ability to achieve highly in a number of different life domains, which may lead to an increase in satisfaction.

The hypothesis in this study is that general intelligence will have a positive correlation with The Satisfaction With Life Scale (SWLS). This is based on previous research such as Oden (1968) and Jones (2006), who found positive

correlations between intelligence and life satisfaction as well as the idea that a high intelligence level will allow individuals the ability to be successful in a number of life domains which in turn may lead to life satisfaction. The idea that intelligence is correlated with success is also echoed by Halpern, Joyner, Udry and Suchindran (2000), who found that intelligence had a negative correlation with bad behaviour and a positive correlation with good behaviour. Success in a number of life domains may lead to high satisfaction levels. If general intelligence is the underlying factor that determines success, then general intelligence may be expected to have a positive relationship with life satisfaction. The findings of Halpern et al. and Jones (2006) share many aspects with the model that is proposed in this thesis. The conclusions reached by Jones (2006) support the idea of a positive relationship between life satisfaction and general intelligence, because for example if life satisfaction correlates with academic performance and general intelligence correlates with academic performance, then it may be that general intelligence will have a positive correlation with life satisfaction.

H1: General intelligence will have a positive correlation with life satisfaction.

Romantic relationship

The relationship between intelligence level and romantic relationship is an area that has not been very well researched. In an exhaustive search for studies that focused on this relationship, I was only able to find a very old study by Knight (1959) that looked directly at the specific relationship between intelligence level and romantic relationship. The Knight study found a positive correlation between intelligence level and the quality and longevity of romantic relationships.

I predict that the higher the level of an individual's general intelligence the more likely they are to be in a successful romantic relationship. Because of the

lack of research on this relationship I have predicted a positive correlation based on the Knight (1959) study and the Jones (2006) study, which found that higher baseline intelligence gives individuals the ability to achieve highly in a wide array of different life domains. Success in all other life domains is expected to be positively correlated with general intelligence (excluding religiosity) based partially on the Jones (2006) conclusions. In the current study the quality of the romantic relationship was defined as how fulfilling the relationship was to the individual participating in the study. It may be that individuals who have a higher level of general intelligence are more likely to obtain and maintain successful relationships. Individuals with a high level of general intelligence may search out individuals that are highly compatible with them, and may be more likely to avoid and repair conflict in the relationship.

H2a: Romantic relationship will have a positive correlation with general intelligence.

Lyubomirsky, King and Diener (2005) found that happy individuals are successful across multiple life domains, including marriage, friendship, work performance, and health. Lyubomirsky et al. demonstrated that the relationship between success and happiness works both ways, where higher levels of happiness lead to success and higher levels of success lead to more happiness. The relationship between a successful marriage and happiness level lends support to a positive correlation between romantic relationship and life satisfaction. Snyder and Lopez (1999) found a positive correlation between level of happiness and likelihood of being in a romantic relationship. Snyder and Lopez also found a positive correlation between an individual's current level of happiness and how satisfying their relationships were. Snyder and Lopez stated that happy individuals

have successful relationships. The romantic relationship research variable measures whether the participant is currently involved in a romantic relationship and if so the amount that the individual is satisfied by their partner and the relationship as a whole. The model in this thesis proposes that the more successful the relationship is, the higher the level of life satisfaction. A successful relationship may bring happiness through affection and physical contact and this short term happiness may be converted to long term overall life satisfaction over time.

H2b: Romantic relationship will have a positive correlation with life satisfaction.

Academic goals

Berry and West (1993) concluded that a measure comprising questions that dealt with critical thinking ability had a predictable positive correlation with goal setting. The critical thinking ability measure is similar to the general intelligence measure employed in the current study. Individuals with higher general intelligence levels may be more involved in activities that lead to a goal being achieved. These individuals may also be more likely to achieve their goals because of higher baseline cognitive ability, which allows them the potential to complete tasks more effectively, than individuals with lower intelligence levels. Individuals with higher general intelligence levels may have high levels of involvement in all areas of their lives, which may lead to higher rates of setting and achieving goals. The academic goals research variable is about the grade that the participant is striving to achieve as well as their commitment to achieving the goal, the higher the goal grade and commitment level the higher the academic goal score.

H3a: Academic goals will have a positive correlation with general intelligence.

Goal setting and feedback lead to higher levels of satisfaction (Kim, 1984). The conclusions of the Kim (1984) study were later reinforced by Yetim (1993), who found that goals of students had a meaningful effect on satisfaction levels. Yetim found that for the students that set and focused on goals relating to their education, their overall satisfaction levels were higher than the students who did not set goals. Fugl-Meyer, Branholm and Fugl-Meyer (1991) found that there was a significant relationship between goal setting and the level of an individual's life satisfaction. Fugl-Meyer et al. conducted research in a rehabilitation facility in Sweden and found that the highest correlations with life satisfaction were firstly with expressive goals (goals relating to relationships and emotions), secondly with spare-time goals (hobbies and interests) and thirdly with a high level of achievement. The participants in the Fugl-Meyer et al. study sample varied in age from late teens to early fifties, with the majority of participants being in their twenties. Fugl-Meyer et al. found that there was a significant relationship between setting and achieving goals and the level of an individual's life satisfaction. The participants in the rehabilitation study were within a lower age range (than most of the conducted surveys that deal with geriatric populations), and is similar in age range to the students that participated in the current research. The participants in the Fugl-Meyer et al. rehabilitation study were focused on their goals for achieving sobriety and getting their lives back together, goal setting and working toward those goals would be the major determining factor for their life satisfaction level. The participants in the current study were undergraduate students engaged in a course of study and so goal setting may be an important factor for this population as well. Goal setting is expected to be a large area of focus for tertiary students, as they have clearly defined due dates for course work (assignments, essays, lab reports) and a large amount of time is spent working toward short term

goals. Hypothesis H3b was made based on the Fugl-Meyer et al.(1991) study group because even though the two population groups do differ in terms of their current circumstances, the comparatively younger age group (to most other previous studies) means that the Fugl-Meyer participants and the participants in the current study are at the beginning of their adult lives and are likely to have many unattained goals and ambitions, so it is likely that having high academic goals will be positively correlated with life satisfaction.

H3b: Academic goals will have a positive correlation with life satisfaction.

Academic performance

Intelligence level of students was positively correlated with academic performance (Duckworth & Seligman, 2005b). Stone (1999a) found that there was a positive correlation between scores on the Acer Word Knowledge Test and the grade point average scores of students at a tertiary level. An individual with a higher level of general intelligence may have the ability to learn, retain and use information to achieve at a higher rate with standard metrics used at university (such as tests and examinations), than individuals with lower levels of general intelligence. The study by Stone shares a number of parallels with the current study, including the use of the same measure for general intelligence and the same type of participants (university students), so it is reasonable to make predictions based on the Stone study for the current study.

H4a: Academic performance will have a positive correlation with general intelligence.

There has been little previous research on life satisfaction in regard to a younger population group. One of the few research papers that looked at an aspect of life satisfaction using a younger population was a study by Bean and Bradley

(1986), which looked at the effect of performance on satisfaction for American college students. Bean and Bradley found that high performance had a strong positive correlation with satisfaction. This could be because the Bean and Bradley participants were at a life stage where they had a strong focus on their academic performance. Academic study being such a major area of focus for a student sample population may be the reason why performance had such a strong correlation with the level of satisfaction. Because of the large amount of feedback students receive through grading, they are reminded of their current level of performance and so even more of their attention and focus are placed on their performance levels.

H4b: Academic performance will have a positive correlation with life satisfaction.

Health status

Individuals with higher levels of general intelligence may have knowledge about how to achieve and maintain a healthy body. Lorig, Mazonson, and Holman (1993) concluded that higher levels of knowledge about personal health resulted in lower pain levels and quicker seeking of treatment. A higher general intelligence level may allow individuals the ability to find information on how to best maintain health if they do not already have the knowledge. A higher intelligence level may result in fewer injuries through a better ability to avoid accidents. A large epidemiological study of almost an entire population in Scotland found that intelligence predicts substantial differences in morbidity and mortality, including deaths from preventable diseases such as type two diabetes, lung cancer and cardiovascular diseases. The study also found that the results remained significant even after controlling for socioeconomic factors (Gottfredson & Deary, 2004). An explanation for these results is that general intelligence

enhances the ability of an individual to care for ones self because learning, reasoning and problem solving are useful in preventing chronic disease and accidental injury, as well as completing complex treatment routines. Intelligence has been positively correlated with various behaviours such as the maintaining of physical fitness, low-sugar and low-fat diets and negatively correlated with alcoholism, smoking and obesity (Gottfredson & Deary, 2004). Health professionals examine the impact of choices on health, but the competence to care for one's self may be a significant factor on health. The knowledge and ability to change behaviour and make positive decisions may have a significant impact on an individual's health.

H5a: Health status will have a positive correlation with general intelligence.

Physical health is significantly correlated with satisfaction (Lohr et al., 1988). Ho et al.(1995) found that health was the number one factor that correlated with life satisfaction. Ho et al. looked at a wide variety of variables that correlated with satisfaction and found that the health status of the participants was by far the most significant factor. Palmore and Luikart (1972) also found that the self rated level of health was the predominant variable that accounted for the highest amount of life satisfaction. The Palmore et al. study is relevant because the current study also used self rated health as the health status measure. Edwards and Klemmack (1973) found that the best predictors of life satisfaction were perceived health level and social activity with friends. These three studies concluded that health level was by far the most important factor in regard to life satisfaction. The expected positive relationship between health status and life satisfaction is based on the research of Gottfredson and Deary (2002) and Ho et al.(1995), which clearly demonstrated that health level is positively correlated with life satisfaction.

Individuals who suffer from chronic ongoing pain and disease may have lower levels of life satisfaction than physically fit and healthy individuals. Taylor et al.(1994) demonstrated the relationship between exercise, endorphin release and happiness. Exercise releases endorphins, which induce short term chemical happiness; it may be that this short term happiness over time is converted to long term life satisfaction.

H5b: Health status will have a positive correlation with life satisfaction.

Religiosity

Religiosity is a sociological term referring to the combination of all the aspects of religious activity and faith, such as attendance at organised events, amount of prayer and perceived closeness to a higher power. Religiosity is concerned with how religious an individual is (the strength of their faith and amount of time and energy devoted to their beliefs), rather that dealing with specific forms of religious belief. Neisser et al. (1998) used the term religiosity to describe the level of an individual's religious belief and strength of faith, removed from specific forms of practise. The measurement of religiosity has been used in a number of studies, including Peacock and Poloma (1999), who included personal devotion, participation in public ritual, divine interaction (individuals believe they have had direct interaction with their god), and preference for public or privatized religiosity, in their definition of degree of religiosity. In the current study religiosity is measured as strength of theological belief, and is a research variable that does not deal with performance or success i.e. the theory that general intelligence gives individuals the baseline ability to perform highly in the other research variables does not apply to religiosity, and as such the prediction for hypothesis H6a is made based on the results of previous research including

Neisser et al. (1998) and is the reason why there is expected to be a negative correlation with general intelligence, because a higher level of general intelligence offers no advantage in achieving a high religiosity level.

A relationship between intelligence and religiosity has been confirmed in a number of studies, including Lynn, Harvey and Nyborg (1998), who found that general intelligence is negatively related to religiosity. In the Lynn et al. study the individuals who identified themselves as having religious faith were split into two groups, liberal persuasions and dogmatic persuasions, based on the amount of time attending religious practise and the amount of time dedicated to personal prayer. Individuals in the dogmatic group displayed significantly lower intelligence levels than the individuals in the liberal group.

A significant negative correlation between religiosity and intelligence was also found by Neisser et al. (1998). On average, atheists scored 1.95 IQ points higher than agnostics, 3.82 points higher than liberal persuasions and 5.89 IQ points higher than dogmatic persuasions. Neisser et al. hypothesized that individuals with lower levels of intelligence would be more easily drawn toward religions which give certain answers.

The relationship between religion and general intelligence is the only relationship in the model that is not predicted to be positive, in that general intelligence is expected to have a negative correlation with religiosity. The higher the level of religiosity, the lower the level of general intelligence. This hypothesis is based on the findings of Lynn et al. (1998) and Neisser et al. (1998). The Neisser et al. study justified the negative relationship between religiosity and intelligence by stating that individuals with lower levels of general intelligence do not question their religion and do not use analytic thought to see the

inconsistencies in their religion, and so stay in their organised religion. Individuals with lower levels of general intelligence are drawn to the comfort of black and white rules and answers with great certainty. Individuals who are raised within an organised religion and have high general intelligence are likely to have a sceptical mind and over time may question their religion and stop believing in some of the extreme tenants of their particular religion.

H6a: Religiosity will have a negative correlation with general intelligence.

It is predicted that the higher the level of religiosity the higher the level of life satisfaction. Levin, Chatters and Taylor (1995b) found that controlling for the effects of socio-demographic variables, level of religiosity maintained a strong, positive correlation with life satisfaction. These findings are reinforced by Ellison (1991) who found that individuals with strong religious faith reported higher levels of both happiness and life satisfaction. It was also found that this relationship was especially strong for the elderly and individuals with low levels of formal education. Certainty about justice, fairness and mortality will likely lead to great comfort and satisfaction. Levin, Chatters, and Taylor (1995a), found that even after controlling for several socio-demographic factors, religiosity maintained a strong significant positive correlation with life satisfaction. Religiosity may also be linked to social contact. Because religious groups often meet and socialise a greater degree of life satisfaction may be the result of increased levels of social contact as well as from the peace of mind from dogmatic rules and principles.

H6b: Religiosity will have a positive correlation with life satisfaction.

Social contact

There is currently very little previous research on the relationship between intelligence and social contact. In an exhaustive search through popular psychology databases, I could not find any previous research that looked directly at this relationship. Individuals with higher levels of general intelligence are likely to be able to attain longer lasting successful relationships than individuals with lower levels of general intelligence. The above statement was made in light of the Jones (2006) study which concluded that a higher general intelligence level affords individuals the potential to complete complex tasks more effectively, including social interactions, a higher success rate during social interactions may lead to an increase in future interactions with previous relationships/individuals.

H7a: Social contact will have a positive correlation with general intelligence.

Martire, Schulz, Mittelmark and Newsom (1999) found that there was a positive correlation between a high degree of social contact and life satisfaction. Using a Hong Kong based sample population, Ho et al. (1995) found that social factors such as the support provided by family, played a large role in regard to life satisfaction. Social contact was found to have a significant relationship with life satisfaction in the Ho et al. study. Simonsick, Kasper, and Phillips (1998) conducted a study that focused on frequency of social interaction, and found that social contact was significantly correlated with life satisfaction. A significant positive correlation was also found by Martire et al. (1999) in their study on family networks. Social contact is predicted to have a positive correlation with life satisfaction based on the previous research by Martire et al. (1999) and Simonsick et al. (1998). Humans are group living social animals so it is expected that the greater the number of positive or neutral experiences an individual has with peers,

family or co-workers the higher their level of life satisfaction will be (Adolphs, 2003).

H7b: Social contact will have a positive correlation with life satisfaction.

General intelligence, romantic relationship status, academic goals and performance, health status, religiosity and social contact have been raised as possible correlation factors with life satisfaction in previous research, however, as far as I could find, they have not yet all been included in a single study/model. There is currently a lack of research on the correlations between these research variables and life satisfaction, which focuses on a young population group. This area of research is important because information on the variables that significantly contribute to life satisfaction will allow resources (such as time) to be used to more effectively facilitate an increase in life satisfaction. Furthermore using young people as a target population may allow interventions at an early stage, resulting in the benefits of higher life satisfaction levels over a longer period of time.

Summary of hypothesis:

H1: General intelligence will have a positive correlation with life satisfaction.

H2a: Romantic relationship will have a positive correlation with general intelligence.

H2b: Romantic relationship will have a positive correlation with life satisfaction.

H3a: Academic goals will have a positive correlation with general intelligence.

H3b: Academic goals will have a positive correlation with life satisfaction.

H4a: Academic performance will have a positive correlation with general intelligence.

H4b: Academic performance will have a positive correlation with life satisfaction.

H5a: Health status will have a positive correlation with general intelligence.

H5b: Health status will have a positive correlation with life satisfaction.

H6a: Religiosity will have a negative correlation with general intelligence.

H6b: Religiosity will have a positive correlation with life satisfaction.

H7a: Social contact will have a positive correlation with general intelligence.

H7b: Social contact will have a positive correlation with life satisfaction.

Chapter Two

Method

This study was conducted at The University of Waikato, during 2009 and 2010. Surveying students at The University of Waikato, the objective was to obtain a reasonably large sample size (over 100 participants) of tertiary students that were (at the time of the study) currently enrolled in a full-time undergraduate course of study.

Participants and setting

Approximately six hundred students enrolled in psychology courses were invited to participate through an advertisement on Moodle. Moodle is an online bulletin board through which students at the University of Waikato receive information relating to their courses as well as information for upcoming events and research studies they may wish to participate in. Copies of the advertisement were also physically posted outside undergraduate classes and on a number of bulletin boards. The participants (N=129) who took part in this research were all undergraduate students, who were at the time of this study enrolled at the University of Waikato. Based on the number of students that were contacted and the number that participated, there was a response rate of approximately twenty percent. At an alpha level of 0.01 and N=129, the power of this research design is 0.8 so the sample size of 129 participants is acceptable (Friedman, 1982).

Students were incentivised by a one percent course credit for participation in the research. In addition to the online recruitment, some of the students who participated in the research were undergraduate students at the University of Waikato selected through snowball sample. Snowball sampling is a technique for recruiting participants into a research sample where existing study participants

recruit future participants from among their friends and acquaintances. Participants who did not qualify for the one percent course credit were not incentivised in any way and participated out of general interest in the research. For those participants who reported age (N=76), 91% where aged between 19 and 23 years old, (Mean= 21.3, S.D.= 2.27). This age group is a reasonable representation of the average age of students at The University of Waikato, which reported that in 2009 62% of all enrolled students were aged under 25 years of age ("The University of Waikato Annual Report," 2009).

The data was collected in two research sessions, once in B semester of 2009 and the second in A semester of 2010. Students were chosen as a test population because they represent a young adult population group. A young population sample was chosen because there is little research on satisfaction in regard to young people, especially when compared to the vast amount of information on geriatric populations and life satisfaction. The student population was also convenient because they were in a central location, which allowed for standardisation of test procedure and the test environment. All research sessions were conducted in lecture rooms with adequate seating, lighting and freedom from distraction and noise.

Measures

Life satisfaction. The overall life satisfaction of the participants was measured using the Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larson, & Griffen, 1985). The SWLS has a narrow focus on global life satisfaction and does not tap related constructs like positive affect. SWLS measures the judgmental component of life satisfaction. The judgemental component of life satisfaction is defined as the participant's subjective view of

their satisfaction with life. The scale is a five item, self report scale in which respondents choose their level of agreement on a seven point scale ranging from (1) very strongly disagree to (7) very strongly agree. An example question is: "In most ways my life is close to ideal" (Appendix 01). The SWLS has high internal validity and is highly reliable. Diener et al.(1985) reported a 0.82 test-retest reliability, and factor analysis revealed that the items represented a unitary factor with an alpha of 0.70. The scale was also found to be valid in relation to other measures of subjective well-being, self-esteem and with interviewer ratings of life satisfaction (Diener et al., 1985). A factor analysis was conducted on the measure. In the current study, the life satisfaction measure represented a unitary factor with an alpha value of 0.75.

General intelligence. The level of an individual's general intelligence was measured using the ACER Word Knowledge Test, developed by the Australian Council for Educational research (Stone et al., 2000) . The ACER Word Knowledge Test is self-administered, subjects are asked to read the test instructions and complete the questions, and there is a 10 minute time limit (Stone, 1999b). The test consists of 72 items that require the participants to match a word or phrase to one of five alternatives, giving the closest meaning to that item. Test participants are required to match common words, for example: Smack = hard, quiet, hit, quick. This word matching tests the breadth of the participant's vocabulary as well as their ability to reason. Reasoning ability is tested because the participants find meaning in the words, and compare words to find which two words have the most similar meaning. The developers of the test recommend its use at tertiary level as a measure of general intelligence. Stone (1999b) concluded that the test was an appropriate measure of general intelligence or baseline cognitive ability for individuals who have completed secondary schooling.

The ACER Word Knowledge test is currently used to assess verbal skills as well as general intelligence, mainly as a screening tool, for employers and as a prerequisite to university entry. The ACER Word Knowledge Test features Australian norms. Because of the close geographical proximity and social similarities between Australian and New Zealand populations it was deemed appropriate to use this measure for this group of participants. The ACER Word Knowledge test is also recommended by the authors for use in an educational or selection setting. This ability to be used in an educational setting is highly relevant when correlating with academic performance and its use in a selection setting will lend credence when discussing the results in an organisational context. Stone (2000) found that the test had a reliability coefficient of 0.91 in their research. The test also had a correlation of 0.68 with the ACER test of verbal reasoning ability, which suggests it is a reasonably valid measure of reasoning ability. A Cronbach's alpha was not conducted for this measure because the ACER Word Knowledge Test measures general intelligence, which is a combination of a number of different types of intelligence such as reasoning, vocabulary and recognition, and as such will not form a unitary factor. The questions within the ACER Word Knowledge Test were designed specifically to measure different types of intelligence to form the general intelligence factor, so all of the questions should not measure a single underlying factor.

Romantic relationship. The original measure for romantic relationship was a combination of a seven question measure from the Relationship Assessment Scale (Hendrick, 1988) and a single question item from Connoly and Johnson (1996). The Connoly and Johnson measure was chosen because it was thought that longevity of a relationship would be a good estimate of quality, and because this measure was developed for a young sample group. The single question

measure used duration of the current romantic relationship as an indicator of romantic experience. It may on the surface seem to be a reasonable assumption that the longer the relationship continues the more fulfilling the relationship must be. This assumption ignores the fact that there are often a wide range of reasons why an unfulfilling relationship may continue, such as lack of alternatives or dependency on the partner financially or otherwise.

With this in mind a seven item measure from Hendrick (1988) was included because it directly focussed on the quality of the romantic relationship. An example of the seven item measure is: How well does your partner meet your needs? The possible answers are on a 1 to 5 scale, with responses ranging from low to high. Sacher and Fine (1996), found the Hendrick measure to be highly reliable and valid, with an average alpha of 0.82 for both men and women.

In this study the two separate measures from Hendrick (1988) and Connoly and Johnson (1996) when combined did not represent a unitary factor. The combined measure for romantic relationship was a two factor measure with one item having a high loading on the second factor and the remaining items having high loadings on the first factor. In order to achieve a unitary factor, the Connoly and Johnson question about length of the relationship was separated from the romantic relationship measure. The question on duration of romantic relationship may have been better treated as a separate variable, however when the Connoly and Johnson measure about longevity of the relationship was correlated it did not display significant relationships with any of the other research variables. The Connoly and Johnson question was removed because practically, romantic relationship could be better measured with just the seven question Hendrick measure rather than with two different measures.

The final seven item measure of romantic relationship represented a unitary factor with an alpha of 0.67 in this study. The measure for romantic relationship in this study was comprised of the seven questions from the measure used by Hendrick (1988), which focuses solely on the quality of the romantic relationship the participants may currently be in. The final list of items that were included in the measure for romantic relationship is contained in Table 1.

Academic goals. The original measure for academic goals was a ten question measure (DeShon & Landis, 1997). DeShon and Landis created the ten question measure by combining two separate measures that were previously used in other studies. The first measure was a two question measure from Klein (1991) and the second measure was an eight question measure from Hollenbeck, Williams and Klein (1986). Klein (1991) conducted research on goal setting and used two questions to determine the level of the goal that individuals were trying to achieve. This measure was used as well as the Goal Commitment Questionnaire by Hollenbeck, Williams and Klein (1986). DeShon and Landis (1997) found this measure to be a reliable and valid measure of commitment to achieving goals and the likelihood of goal achievement, with a reported alpha value of 0.74. An example question is: "It's unrealistic for me to expect to reach this goal" (Appendix 01). The response answers were on a seven point scale, 1 representing strongly disagree and 7 representing strongly agree. When the Klein (1991), measure was combined with the 8 item measure by Hollenbeck et al. (1986), DeShon and Landis reported an alpha value of 0.82 for goal commitment. This measure was used in the context of the student's grades as their primary goal, as this test population is based on the goals of tertiary students, it is thus also very closely linked with the measure for academic performance.

A factor analysis was conducted on the 10 question combined measure used by Deshon and Landis (1997). In the current study, the combined measure represented a two factor measure. Two items had high loadings on the second factor, (with the remaining items all having high loadings on the first factor). The two questions that had high loadings on the second factor were from the Klein(1991) measure. The two Klein questions were separated from the data set, when the Klein measure was correlated with all the other research variables there were no significant correlations found and the Klein measure of academic goals was eliminated because practically, academic goals could be better measured with just the eight questions from the Hollenbeck measure, than with two different measures. The final eight question measure represented a unitary factor with an alpha of 0.72 in this study. The final list of items that is included in this measure is displayed in Table 1.

Academic performance. Academic performance was measured with a single question based on the grades that the students currently achieved. The question was: "In A semester on average, I received a _ grade" (Appendix 01). The response answers were on an eight point scale ranging from C to A+. The question was modified to reflect the current semester during which the surveys were taken. This is similar to a measure employed by Stone (1999a), who found that there was a positive correlation between a measure of general intelligence and the self reported grade point average scores of students at university level. A self-report measure of academic performance was chosen because retrieving grades directly from the University would have raised ethical issues.

Health status. The measure for health status originally comprised five questions from two different studies. Two of the questions were taken from

Epstein, Hall, Tognetti, Son and Conant (1989), who found that self rated health status was a suitable measure of actual health status, as determined by a physician's evaluation. An example question is, "Do you have a chronic disease, impairment or handicap?" (Appendix 01). The two questions taken from the Epstein et al. study were chosen because they were focused on the current physical health of the participant.

The second set of three questions was taken from a study conducted by Erikson, Unden and Elofsson (2001), these questions were chosen because they dealt with an individual's health and fitness levels in comparison to their peers. The questions included items on general health status, general health and a comparison of health to peers. An example question is: "How do you regard your health?" (Appendix 01). Responses range from very poor to excellent on a 7 point scale. This set of three self-rated questions was found to represent a parallel assessment of subjective health. The Erikson et al. study found the correlation for general health status and general health was 0.75, general health status and comparison to peers was 0.57 and general health and comparison to peers was 0.62. Functional health (ability to conduct everyday tasks) and physical health (physical strength and endurance) accounted for 81.1% of the variance for general health status, 72.3% for general health and 52.2% for comparison to peers.

In the current study a factor analysis was conducted on the five question measure which was a combination of the measure from Epstein et al. and Erikson et al. The factor analyses revealed that the five question measure represented a two factor measure. The question about whether the participant currently had a significant physical disability had a high loading on the second factor, with all other items having high loadings on the first factor. A question about physical

disability was unlikely to apply to many participants, when this item was correlated with the other research variables there were no significant correlations. This item was removed because practically, health status could be better measured with a single factor measure. The final list of items used in this measure is displayed in Table 1. The final four item measure, revealed a unitary factor that had an alpha value of 0.79 in this study.

Religiosity. The measure for religiosity in this study was taken from Daalman, Perera and Studenski (2004). The religiosity measure comprised five questions, which assessed frequency of faith related behaviour and strength of belief when surveying geriatric outpatients on their views on religion and spirituality. This measure was found to have good reliability via internal consistency with an alpha value of 0.87. Two questions from this measure are based on frequency of religious attendance e.g.: "How frequently do you attend religious or spiritual service?" (Appendix 01). The response answers range from never to everyday on a five point scale. The remaining three questions are broader more existential questions based on strength of faith e.g.: "How strong is your religious or spiritual orientation?" (Appendix 01). Response answers ranged from very low to very high on a five point scale. In this study the factor analysis revealed a unitary factor with an alpha value of 0.85.

Social contact. The social contact measure was initially a seven question measure composed of three items from Simonsick, Kasper, and Phllips (1998) and four questions from Martire, Schulz, Mittelmark and Newsom (1999). Social contact is based on the frequency of interaction with non-spouse others and the number of people an individual comes into contact with. The three items from Simonsick, Kasper, and Phllips (1998), looked at frequency of social interaction.

Simonsick et al. found their measure for social contact significantly related to life satisfaction. An example question from this measure is: “How often do you have in-person social contact with non-household members?” (Appendix 01). There were five possible responses to this question ranging from less than once a week to greater than nine times a week. The questions from the Simonsick et al. study were selected because they deal with the actual number of interactions with other individuals. Four items were used from a study conducted by Martire, Schulz, Mittelmark and Newsom (1999), which looked at the amount of time spent with close friends and family. These items were chosen because they deal with the emotional aspects of social contact and whether individuals have meaningful interactions with other individuals. An example of the four items is: “How many relatives do you feel close to?” (Appendix 01). The response options are on a five point scale, ranging from zero to greater than nine. The Martire et al. (1999) study split the four question measure into two factors. The first two items made up the family network contact scale, which had an alpha that ranged from 0.70-0.74. The second two questions comprised the friend network contact scale and alpha values ranged from 0.87-0.94.

When factor analysis was conducted in the present study the seven question combined measure represented a two factor measure. There were two items that had a significant loading with the second factor, all other questions had a high loading on the first factor. Question thirty four (Appendix 01) dealt with the living arrangement of the participant and question thirty nine (Appendix 01) dealt with the perception of whether the participant felt they had any close friends, these two questions differed from the other questions in that they did not deal with frequency of interaction. There cannot be a justification for why these two questions should be combined into a separate factor as they theoretically should

measure two entirely different things. When the items were correlated separately with all the other research variables there were no significant correlations observed. When two of the questions (Q34 & Q39 Appendix 01) were omitted from the data, the five item measure represented a unitary factor with an alpha value of 0.79 in this study. The final list of the questions that comprised the social contact factor is contained in Table 1.

Table 1: Research variables- final questions

Variable	Variable label	Items in survey	No. of questions
Life satisfaction	SWLS	1-5	5
Health status	HEALST	6-9	4
Romantic relationship	ROMREL	12-18	7
Religiosity	RELIG	19-23	5
Academic performance	ACAPER	24	1
Academic goals	ACAGOA	26-33	8
Social contact	SOCCON	35-38, 40	5

Procedure

The individuals who participated in this study were assured that all information gathered would only be viewed by the researcher, and that they had a responsibility to respond to the survey as openly and honestly as possible. This ensured that the participants would have no reason to respond to the survey untruthfully because of social pressure, as there would be no information tying any individual to any test response. Each step of the testing procedure was explained to ensure that all participants understood exactly what was expected of them. Participants were also advised that they could ask for clarification of any question at any time, which many of the participants did. This procedure, resulted in the completion of the entire survey (Appendix 01) by all of the participants, lending credence to the validity of the data gathered, as no sections were left unfilled or completed without a full understanding of what was expected for any

question or test measure. Once the participation of the students that qualified for the participation incentive was recorded, all personal details (the name and student identification numbers of the students) were separated from the raw data. Students that were currently enrolled in the first year psychology course were eligible for one percent mark for their participation in the research.

The survey (Appendix 01) was constructed by combining all of the measures described in the measures section, such as health status, social contact, academic performance etc. into a forty question, seven page document. The survey was constructed to maintain the wording from the original measures as much as possible. The survey and the ACER Word Knowledge test were administered in group settings with a maximum of 20 participants in any given session.

The data gathering sessions where conducted in lecture rooms, closed off from other activity, with no noise, good lighting and comfortable seating as required by the ACER Word Knowledge test procedure. During each administration session the purpose of the study was explained to the participants, what the individual research variables in the satisfaction survey (Appendix 01) measured as well as general information about the ACER Word Knowledge test. Participants were asked to carefully read and sign a consent form indicating that they were aware that their participation was voluntary and they were free to withdraw at any time. The participants were then given an information sheet, which covered what they had just been told but in greater detail, this was taken away to be read in depth at the participant's convenience. The general intelligence test and the satisfaction survey (Appendix 01) where given to the participants in matched pairs. The ACER Word Knowledge Test was administered first.

The ACER Word Knowledge test is a time limited test that takes ten minutes to complete. The test was delivered as per the standardised administration methodology that was included with the test. The instructions were read aloud to the group, the example questions were completed and finally the participants were asked if they required anything to be clarified before the test was to start. When the ten minute time limit was over the participants were told to stop working and the tests were collected. Participants were then asked to complete the questionnaire (Appendix 01). The participants were given as much time as necessary to complete the survey. The average time to complete the survey was fifteen minutes, with this varying between ten and twenty minutes. Finally, participants were asked if they had any queries about the test or survey and those questions were answered in an open forum with discussion if necessary. Participants were then thanked for their participation and told that they were free to leave at any time.

The Questionnaire (Appendix 01) and the ACER Word knowledge test were coded in numbered pairs so they could be later matched to one another. The individual measures contained in the survey (Appendix 01) were recorded. The ACER Word Knowledge test was scored using the supplied marking sheet and the results were recorded into SPSS a statistics package commonly used in psychological research. The raw scores were converted into z-scores (standardised values) for measures that were comprised of questions that contained different scales such as the health status measure, so that each question had an equal weighting (Ackerman & Goff, 1992). Factor analysis was conducted on all of the relevant measures to establish that each research variable was measuring a single construct resulting in unitary measures.

Chapter Three

Results

The current study explored the relationships of a number of research variables in relation to life satisfaction of a young tertiary student sample. The objective was to test a theoretical model that included the relationships between life satisfaction and a number of life domains. A young sample group of tertiary students were used to establish the relationships between romantic relationship, academic goals, academic performance, health status, religiosity and social contact, as well as determine whether general intelligence had any significant associations with the research variables.

This chapter is divided into sections that focus on each research variable, presenting the results of the correlations between the research variables, testing the hypotheses as well as comparing the actual results to the predicted relationships that were expected based on previous research and theoretical predictions. Using SPSS, a Pearson product-moment two-way correlation coefficient was conducted between the tests and research variables. This was conducted to better understand the strength of the correlation coefficients for the various individual factors with life satisfaction.

Descriptive statistics are presented in Table 2. Although a significance level of both .05 and .01 were employed for statistical analyses, the only significant relationships to emerge were at the $p<.01$ level.

Table 2: Correlations between variables and alpha reliabilities (N= 129)

Variable	Mean	Std. Dev.	1	2	3	4	5	6	7	8
1 General intelligence	50.83	8.03	_							
2 Life satisfaction	24.25	6.59	.04	*.75*						
3 Health status	24.25	3.03	-.10	.30**	*.79*					
4 Romantic relationship	11.42	14.22	.11	.25**	-.02	*.67*				
5 Religiosity	11.71	6.07	.15	.07	.03	-.07	*.85*			
6 Academic performance	5.21	1.24	.09	.25**	-.04	.23**	.05	_		
7 Academic goals	43.95	7.79	-.01	.30**	.01	.29**	.15	.24**	*.72*	
8 Social contact	19.56	3.21	-.07	.12	.09	-.03	.16	.12	-.15	*.79*

Notes: ** Correlation is significant at the $p < .01$ level.

Alpha reliabilities on the diagonal in italics.

Hypothesis Testing

The relationship between general intelligence and life satisfaction.

Hypothesis H1 predicted that general intelligence would have a positive correlation with life satisfaction. There was no significant correlation relationship found between general intelligence and life satisfaction for the tertiary students in this study. Hence Hypothesis H1 was not supported. Based on the results of this study there does not appear to be any relationship between general intelligence and life satisfaction for individuals similar to those in the sample group.

The sample group appears to be a reasonable representation of tertiary students in regard to general intelligence level, as displayed by the mean ACER Word Knowledge Test score of 50.83, which represents general reasoning ability and general intelligence. A score within the range of 45-55 is the average expected for students at tertiary education level (Stone, 1999a). The general intelligence measure had a standard deviation of 8.03 which means that the sample (for the most part) contained scores that were very similar to one another.

The range of scores in the measure was from a low score of 30 to a high score of 61. However the lower scores were outliers with the vast majority of participants scoring in the mid fifties.

The lack of a significant correlation between general intelligence and life satisfaction may be due to range restriction as defined by Sackett, Laczo and Arvey (2002) within the general intelligence measure data. When a sample contains individuals that very similar to one another truncation of the spread of the data can result in underestimates of effect size (Sackett et al., 2002). The nature of this sample brings with it range restriction which suggests the possibility that, this range restriction may be due to the fact that all of the participants were tertiary students so the minimum intelligence level would be expected to be fairly high as these participants qualified for entry into university and were at the time of the data collection involved in full time study. The data suggests that if the sample group contained a more diverse population of young people, such as individuals who did not attend university, there may have been a greater range of general intelligence scores.

The mean score for the satisfaction with life measure was 24.25 which is within the high range of average according to the designers of the measure (Diener et al., 1985). When the overall average is converted back into the wording of the measure the average response was 5 which is representative of "slightly agree", it is important to note that this measure is composed of very positively worded statements (e.g. The conditions of my life are excellent) about satisfaction with broad life areas so the average score should not be expected to be very high (Appendix 01). This means that, on average, individuals in this sample group had relatively high overall life satisfaction levels when compared to the general

population. The standard deviation for the satisfaction with life measure in the present study was 6.59, which means that the participants as a group responded very similarly. The range of scores for the life satisfaction measure was from a high score of 32 to a low score of 9. The high score of 32 is very high when it is considered that the maximum satisfaction score is 35. The majority of the scores were in the mid to high twenties. The data shows that, on average, tertiary students in this study have high levels of life satisfaction. It can be said that on average this sample group had a high level of life satisfaction and a high level of general intelligence in comparison to the general population (Diener et al., 1985).

The lack of a significant correlation between general intelligence and life satisfaction in the present study is at odds with Oden (1968) who found a positive correlation between intelligence and life satisfaction. However, the findings of the present study are reinforced by Gannon and Ranzijn (2005) and Palmore and Luikart (1972) who found no significant correlation between general intelligence and life satisfaction. The nature of the relationship between general intelligence and life satisfaction suggests that for individuals similar to those in this sample, there is no relationship between the level of an individual's intelligence and how satisfied they are with life.

The relationship between romantic relationship and general intelligence. Hypothesis H2a predicted a positive correlation between romantic relationship and general intelligence. There was no significant correlation found between general intelligence and romantic relationship. Hence Hypothesis H2a was not supported. The nature of this relationship suggests that general intelligence of an individual has no relationship with the quality of their relationship, nor the probability that they are currently involved in a romantic

relationship for individuals similar to the participants in the present study. The expected positive correlation was also based on studies by Jones (2006) and Lyubmirsky et al. (2005) who concluded that high intelligence levels gave individuals the ability to be successful in all of their life domains. There was also a significant positive correlation expected based on previous research such as Knight (1959), however there were no contemporary studies identified that focused on the relationship between general intelligence and romantic relationship.

This group of tertiary students had a mean of 11.42 for the romantic relationship score. When the average score is interpreted in the scale of the measure, the average response was a rounded score of 2, which is half-way between low and medium. This is a low average score which means that the majority of the participants were not currently involved in a romantic relationship. The standard deviation for this measure was 14.22. The range of scores in the measure was from a high score of 38 to a low score of 0. This means that there was a large amount of variation in the participant's responses. This wide variation in responses implies that some of the participants had very fulfilling and successful relationships as well as many participants not being involved in a romantic relationship at all.

The relationship between romantic relationship and life satisfaction. Hypothesis H2b predicted a positive correlation between romantic relationship and life satisfaction. There was a significant correlation between life satisfaction and romantic relationship ($r = 0.25$, $p<0.01$). Thus Hypothesis H2b was supported. The prediction of a positive correlation was made based on previous research by Snyder and Lopez (1999) who found a positive correlation between

happiness and involvement in a romantic relationship. The romantic relationship measure assesses both the likelihood of being in a romantic relationship as well as how satisfying the participant finds their current relationship. The nature of this relationship suggests that the higher the quality of an individual's relationship the more satisfied with life that individual is. This relationship also implies that individuals who are in a romantic relationship have a higher life satisfaction level than single people for individuals similar to those in the current sample.

The reverse relationship may be true in that individuals who are highly satisfied with life are generally happier and more attractive to others. There is a positive correlation between life satisfaction and romantic relationship, but there is no directionality of the relationship established in the current study. Individuals who are very satisfied with their life may appear more confident and may be more pleasant to others, which may increase the likelihood that they establish and maintain successful relationships. In this study as romantic relationship quality increased so did life satisfaction.

The relationship between academic goals and general intelligence. Hypothesis H3a predicted a positive correlation between academic goals and general intelligence. There was no significant correlation found between academic goals and general intelligence in the present study. The correlation coefficient data obtained did not support Hypothesis H3a. The mean for academic goals measure was 43.95, with a standard deviation of 7.79. This means that on average participants in this study had very high expectations for the goals that they wanted to achieve as well as having a high degree of belief that they would achieve those goals (DeShon & Landis, 1997). When the average response score is converted

into the seven point scale of the measure, the mean score was 5.49. A score between five and six represents strongly agreeing with the specific item.

A high score on the academic goals measure may suggest that individuals have their goals organised with a clear plan for how they will be achieved (DeShon & Landis, 1997). So as a group these participants have a high amount of focus on their goals, high expectations and may have a plan on how to achieve their academic goals. The lack of a significant correlation may be attributed to range restriction in the general intelligence scores. The range of scores in the academic goals measure was from a high score of 54 to a low score of 27. This means that there was a reasonably large amount of variation in the participants' responses. The lack of correlation is not what was expected based on previous research by Berry and West (1993) who found a positive correlation between academic goals and general intelligence. The nature of this relationship suggests that an individual's general intelligence level has no effect on their ambition and focus when setting academic goals, for individuals similar to those in the current sample.

The relationship between academic goals and life satisfaction.

Hypothesis H3b predicted a positive correlation between academic goals and life satisfaction. In the present study it was found that there was a significant positive correlation between academic goals and life satisfaction ($r = 0.30$, $p<0.01$). The correlation coefficient data obtained did support Hypothesis H3b.

There was expected to be a positive correlation for this relationship based on previous research by Kim (1984), Yetim (1993) and Fugl-Meyer et al. (1991) who all found that goal setting lead to higher levels of life satisfaction. The nature of this relationship suggests that for individuals similar to those in the present

study as ambition and focus on academic goals increases so did life satisfaction. It was expected that because there is such a high degree of focus on academic goals for students, that there would be a high score on this measure. The more focus on academic goals a student has the more engaged in their studies they are, so when they achieve their academic goals it will result in higher amounts of life satisfaction.

The opposite relationship may be true in that individuals with high levels of life satisfaction are more likely to be ambitious, set goals and actively work toward achieving those goals. Setting high goals and maintaining focus on those goals is positively related to life satisfaction, so setting academic goals is a good use of time and energy if you wish to increase an individual's level of life satisfaction.

The relationship between academic performance and general intelligence. Hypothesis H4a predicted a positive correlation between academic performance and general intelligence. There was no significant correlation between academic performance and general intelligence in this study. The correlation coefficient data obtained did not support Hypothesis H4a. The mean score for academic performance was 5.21 in this study, this falls between a score of five which represents a B+ grade and a six which represents a score of A-. The mean score shows that this group of students on average had a reasonably high academic performance level when compared to the Bean and Bradley (1986) study where American college students reported an average grade of a B which would equal a score of four on this measure. There was a range of seven with a high score of eight and a low score of one, so all grades from a C to A+ were represented in the data. There was a standard deviation of 1.24 for the academic

performance measure this means that the majority of the responses were similar to one another. The lack of a significant correlation may be attributed to range restriction in the general intelligence measure as all the participants were university students and so are expected have a relatively high intelligence level. The same argument can be made about range restriction for the responses for the academic performance measure, because all of the participants are university students it may be expected that they would have a reasonably high level of achievement as a group, when compared to the general population.

The relationship between academic performance and life satisfaction. Hypothesis H4b predicted a positive correlation between academic performance and life satisfaction. There was a significant positive correlation found between academic performance and life satisfaction ($r = 0.25$, $p<0.01$) thus supporting Hypothesis H4b.

The relationship between academic performance and life satisfaction was expected to be positive based on previous research including Baumeister et al. (2008) who found that satisfaction was partly the result of high academic performance and Bean and Bradley (1986) who found a positive correlation between grades and life satisfaction for college students. The nature of this relationship suggests that for individuals similar to those in the current study, as academic performance increases so did life satisfaction. Focusing on a high level of achievement seems to be of significance in regard to life satisfaction for tertiary students. This positive correlation may be because achieving high grades is such a prominent area of focus for students that are involved in full time education, a large amount of time and energy is devoted to achieve grades so a large amount of satisfaction is expected to be derived from high achievement.

The relationship between health status and general intelligence.

Hypothesis H5a predicted a positive correlation between health status and general intelligence level. As there was no significant correlation between health status and general intelligence level in the present study, support for Hypothesis H5a was not found. Previous research, including Gottfredson and Deary (2004), concluded that higher cognitive ability enhanced individual's care for their own health, preventing chronic disease. The reason there was expected to be a positive correlation between health status and general intelligence was because it was thought that higher baseline intelligence gave individuals the ability to better care for their health.

The mean score for health status was 24.25 in this study, with a standard deviation of 3.03, this means that most of the participants responded in a very similar manner and on average participants in this study had a high level of health. An overall high level of health may be expected because the current study is focusing on a young population because the average age of the participants was younger they may not have had time to feel the ill effects of poor health decisions. The lack of a significant correlation may also be due to range restriction for the general intelligence measure, or it may be that there is no correlation between general intelligence and health status for tertiary students. The nature of the observed relationship suggests that for individuals similar to those in the sample general intelligence has no impact on an individual's health.

The relationship between health status and life satisfaction. Hypothesis H5b predicted a positive correlation between health status and life satisfaction. There was a significant positive correlation ($r = 0.30$, $p<0.01$) found between health status and life satisfaction thus supporting Hypothesis H5b. There was

expected to be a positive correlation between health status and life satisfaction based on previous research such as Ho et al. (1995) and Lohr et al. (1988) who both found a significant positive relationship.

The data suggests that a high life satisfaction level means that individuals are more likely to engage in activities such as social events and exercise which leads to an increase in fitness and health level. The nature of this relationship suggests that for individuals similar to those in the current sample, as health status increases so does life satisfaction.

The relationship between religiosity and general intelligence.

Hypothesis H6a predicted a negative correlation relationship between religiosity and general intelligence. As there was no significant relationship found between level of religiosity and general intelligence in this study, support for Hypothesis H6a was not found. The mean score for the religiosity measure for this sample group was 11.71, with a standard deviation of 6.07. This demonstrates that this sample group on average was not very religious as a group as the maximum score achievable on this religiosity measure is 25. The standard deviation shows that the sample was diverse in their responses with a reasonably large spread for different levels of religious belief.

Previous research (Lynn et al. (1998), Neisser et al. (1998)) found a negative correlation between general intelligence and religiosity, as such this relationship was expected to have a significant negative correlation. A study that focused on 15 and 16 year old students by Francis (1998) found no correlation for this relationship. Because this group as a whole displayed a low level of religiosity it may be that younger individuals as a group are less religious than older sample populations. Because this study focused on tertiary students it may

be that this is a group of individuals that on average display a high level of intelligence and a low level of religiosity. The nature of this relationship suggests for individuals similar to those in the present study general intelligence has no impact on the religiosity level of individuals.

The relationship between religiosity and life satisfaction. Hypothesis H6b predicted a positive correlation between religiosity and life satisfaction. As there was no significant correlation found between religiosity and life satisfaction in this study, support Hypothesis H6b was not found. Previous research, including Ellison (1991) and Levin et al. (1995), found a positive relationship between religiosity and life satisfaction, so it was expected to be a positive relationship in this study. The justification for hypothesising this expected relationship was that individuals that were highly religious would take great comfort from the certainty about issues like the afterlife and this comfort would transfer to life satisfaction. The lack of a significant correlation in this study may be due to the population in this sample not displaying a high level of religiosity on average. Or it may be that religiosity is not an important factor in regard to life satisfaction for young people.

The nature of this relationship suggests that for individuals similar to those in this sample there is no relationship between religiosity and life satisfaction. Having a strong spiritual or religious orientation or practise does not appear to have any relationship to the level of an individual's life satisfaction for young tertiary students in this sample.

The relationship between social contact and general intelligence. Hypothesis H7a predicted a positive correlation relationship between social contact and general intelligence. There was no significant correlation found

between social contact and general intelligence. The correlation coefficient data obtained did not support Hypothesis H7a.

There was expected to be a positive correlation between general intelligence and social contact based on the idea that baseline cognitive ability gives individuals the ability to be successful in a number of life domains including areas such as social interaction (Jones, 2006). This increased ability to have successful social interactions would lead to an increase of social interaction in the future. This however was not found to be the case in the current study. The mean score on the social contact measure used in this study was 19.56, with a standard deviation of 3.21. This means that on average participants in this study had a high amount of social contact which is what should be expected because these were all students that were enrolled in full time study. Between lectures and tutorials that tertiary students are required to attend there would be a high level of social contact with a large number of people. Being tertiary students it may also be expected that participants would have social living situations with either a few flatmates or a large number of individuals if they are living in a domicile. In retrospect it may have been better to assess quality of social relationships rather than frequency of social interactions in the current study.

The lack of a significant positive correlation between general intelligence and social contact may be due to the nature of this sample and its inherent range restriction in the general intelligence measure, or range restriction in the responses for the social contact measure. With a standard deviation of 3.21 it is apparent that most of the participants responded very similarly with on average a high social contact score. Perhaps if the sample population included a wider range of

individuals (not just tertiary students) there would have been more individuals who did not come into contact with a large number of people.

The nature of this relationship suggests that for individuals similar to those in the current study there is no relationship between general intelligence level and amount of social contact an individual has. For a young tertiary student sample general intelligence has no impact on the number of people they interact with, because tertiary students involved in full time study are required to interact with and be in physical contact with large numbers of other individuals.

The relationship between social contact and life satisfaction. Hypothesis H7b predicted a positive correlation between social contact and life satisfaction. There was no significant correlation found between social contact and life satisfaction. The correlation coefficient data obtained did not support Hypothesis H7b.

Previous research, including Matire (1999) and Simonsick et al. (1998), concluded that there was a positive correlation between life satisfaction and social contact, so it was predicted that there would be a significant positive relationship in the current study. The rationale behind this prediction was that humans are by their nature social animals so being in contact with large numbers of other individuals is expected to bring happiness and increase life satisfaction (Adolphs, 2003). The lack of a significant correlation between life satisfaction and social contact may be due to range restriction in this sample group (tertiary students) if a wider range of participants were included in this study there may have been a wider array of responses and perhaps a significant positive correlation. However, Conner et al. (1979) found no significant correlation for these research variables,

so perhaps there is generally no significant relationship between life satisfaction and social contact.

The nature of this relationship suggests that for individuals similar to those in the present sample there is no relationship between an individual's life satisfaction level and the number of people they come into contact with. Because all full time (on campus) tertiary students are required to interact with a large number of other individuals social contact is not an important factor in determining their life satisfaction levels.

Other significant correlations. Along with the hypothesised relationships there were three other significant correlations observed in the data. Academic performance and romantic relationship displayed a significant positive correlation coefficient ($r = 0.23$, $p<.01$) as did academic goals and romantic relationship ($r = 0.29$, $p<.01$). At first glance there appears to be no relation between the academic research variables and the romantic relationship variable however a possible explanation for these significant correlations is that individuals that are motivated and driven put a lot of energy and effort into all aspects of their lives especially areas which they value highly. Life domains that require a large time commitment such as academia and romantic relationships also require a large amount of focus and motivation to be successful.

There was also a significant positive correlation observed between academic performance and academic goals ($r = 0.24$, $p<.01$). This relationship should be expected because it is apparent that academic performance and academic goals are related research variables. Setting and working toward academic goals is likely to eventuate in a high academic performance level.

Summary of results

It was found that health status ($r = 0.30$, $p<.01$), romantic relationship ($r = 0.25$, $p<.01$), academic performance ($r = 0.25$, $p<.01$) and academic goals ($r = 0.30$, $p<.01$) all displayed significant positive correlations with life satisfaction. It was also found that academic performance and academic goals were significantly positively correlated with romantic relationship. Academic goals and academic performance had a significant positive correlation. General intelligence, religiosity and social contact had no significant correlations with any of the other research variables. Hypothesis H2b, H3b, H4b and H5b were supported by the data. This study also found significant positive correlations between academic goals and romantic relationship, academic goals and academic performance, and academic performance and romantic relationship. As there were no other significant correlations Hypotheses H1, H2a, H3a, H4a, H5a, H6a, H6b, H7a and H7b were not supported at the bivariate level.

Health status, romantic relationship, academic performance and academic goals stand out as having predictive ability in regard to life satisfaction. All of the significant correlations displayed a similar effect size. General intelligence appears to have no relationship with success in any of the life domains, nor life satisfaction for the tertiary students whom participated in the current research.

Chapter Four

Discussion

The purpose of the present study was to determine the relationship between a number of research variables (life domains) and life satisfaction for a sample of tertiary students, as well as to determine if general intelligence had any relationship with life satisfaction or any of the other research variables. A secondary objective was to compare the results of the young population group in the current study to that of previous research which, for the most part, focused on older population groups. Using the results of this study, implications of the findings will be discussed in terms of practical use within organisations. Life satisfaction was correlated with a number of variables (resulting in four significant correlations), which were selected based on significant correlations in previous studies. These variables selected for hypotheses testing were general intelligence, romantic relationship, academic goals, academic performance, health status, religiosity and social contact. Life satisfaction only displayed significant correlation coefficients with romantic relationship, academic goals, academic performance and health status.

The hypotheses were made in light of previous research along with theoretical reasoning. The current study found that only romantic relationship, academic goals, academic performance and health status had a significant correlation with life satisfaction. Social contact and religiosity had no significant relationships with life satisfaction. There were no significant relationships between general intelligence and any of the other research variables. The lack of significant correlations (as may have been expected from previous research) may be due to these research variables not being significant life domains in regard to

life satisfaction for this young sample group, and an area in which younger population groups differ from older sample groups.

The data analysis also revealed significant correlations between both academic performance and academic goals with romantic relationship, as well as a significant correlation between academic performance and academic goals. Although these significant relationships were not included in the Hypotheses, the associations will be discussed.

General intelligence and life satisfaction

The original theoretical justification for hypothesis H1 was that highly intelligent individuals are more likely to be successful in many life domains because of base level cognitive ability, the ability to be successful would lead to higher amounts of satisfaction from both their academic and social lives. It may be that individuals with lower levels of intelligence are more likely to be less successful in many different life domains, which will lead to lower levels of overall life satisfaction (Jones, 2006). This relationship was expected because of studies such as Oden (1968), Jones (2006) and Lyumbirsky et al. (2005) who all observed a positive correlation between intelligence and life satisfaction. However this was not the observed correlation coefficient in the current research. General intelligence was not significantly correlated with life satisfaction for this sample of tertiary students.

Although this sample population displayed a reasonably varied range of intelligence scores, a greater range of scores on the intelligence measure may have resulted from a more diverse sample population that included a young working population, as well as participants enrolled in university (Sackett et al., 2002). The mean score on the ACER Word Knowledge Test was within the range expected

for individuals at this age range/ education level (Stone, 1999). It may be that all undergraduate tertiary students have a fairly high general intelligence level in comparison to the general population in the same age range. Because the participants in this sample group were so similar to one another, it may be that all of the students are within the same general intelligence level, which implies that general intelligence was not a significant factor for this sample population. Perhaps if the study included a wider range of young people such as those involved in full time work there would have been a wider range of general intelligence levels. So it may be that there is a significant relationship in the general population but due to range restriction of the sample no relationship was found in the current research (Sackett et al., 2002).

Another possible explanation for the absence of a significant correlation between general intelligence and life satisfaction in the current study may be that there may not be any relationship between these two research variables. The majority of previous research has found a positive relationship between general intelligence and life satisfaction, however both Gannon and Ranzijn (2005) and Palmore and Luikart (1972) found no significant correlation between general intelligence and life satisfaction as did numerous other studies, so it may be that this is an area where a young population group does not differ from older populations, and that there is no significant correlation between general intelligence and life satisfaction. As with any area of research there are conflicting conclusions reached by different studies, so the conclusions of individual studies should be limited to the specific study sample in question and perhaps the results may not be transferable to conclusions about the general population.

There have been studies that have found a positive correlation between emotional intelligence and life satisfaction (Martinez-Pons, 1998) and a positive correlation between education level with life satisfaction (Meeks & Murrell, 2001). But those studies focused on different forms of intelligence and participants were selected from the general population, the nature of this group of participants limits the range of general intelligence scores and as such general intelligence does not appear to be an important relationship with the life satisfaction levels of tertiary students. In light of the observed correlation coefficient from this study, it can be said that for this sample of tertiary students, individuals are not required to have a high general intelligence level to be highly satisfied with life in general. A higher general intelligence level may be beneficial but it is not a crucial factor to achieve high levels of life satisfaction.

Romantic relationship

There was no significant correlation found between general intelligence and romantic relationship. This is contrary to the hypothesis which predicted a positive correlation between romantic relationship and general intelligence level. The justification for the original hypothesis was based mainly on the idea that high general intelligence allows competency in multiple life domains (Lyubomirsky et al., 2005) including relationships as well as a single older study by Knight (1959) who concluded that high intelligence level had a positive effect on the quality and longevity of romantic relationships. The hypothesis was not based on previous research that focused on the relationship between romantic relationship and general intelligence because studies on this relationship are almost non-existent. The original justification for an expected positive correlation relationship was that individuals with a higher level of general intelligence would have a greater ability to find and maintain a successful romantic relationship.

Jones (2006) concluded that high baseline intelligence gave individuals the ability to be successful in all life domains including social interactions. Hypothesis H2a was based on the fact that success in all of the other life domains was expected to have a positive correlation with general intelligence level.

It may be that the intelligence level of an individual does not have any effect on the quality of their relationship. Romantic relationships are complex and have many factors that decide whether or not they are successful, it may be that being in a relationship with someone who is at a similar intelligence level or physical attractiveness level as one's self is the most important factor. Having similar interests, hobbies, backgrounds, amount of time spent together and a raft of other factors may be more important than intelligence level for romantic relationship quality.

People become romantically involved with others for a multitude of reasons, perhaps other factors such as physical attractiveness, confidence, or being of similar intelligence levels with one another are far more important variables in determining the probability of being in (and the quality of) a romantic relationship. Perhaps general intelligence as an isolated research variable may not be the most salient predictor of romantic success.

There was a significant positive correlation coefficient observed between romantic relationship and life satisfaction in this study. Hypothesis H2b predicted a positive correlation based on previous research (Snyder & Lopez, 1999). Snyder and Lopez concluded that individuals that are in relationships displayed a higher amount of life satisfaction than single individuals. This relationship has also been observed in this study, as romantic relationship had a significant positive correlation with life satisfaction.

A successful romantic relationship brings with it support, friendship, and chemical arousal. As such social contact and romantic relationship are similar because both deal with physical contact with other individuals. When individuals fall in love there are a number of chemicals such as oxytocin, vasopressin and endorphins which are released within the brain, the release of these chemicals bring short term euphoria and happiness (Koob & Bloom, 1982). Perhaps this short term chemically induced happiness may over time result in long term life satisfaction. Because romantic relationship is positively correlated with life satisfaction, it is an effective use of resources (time) if an individual wishes to have higher levels of life satisfaction.

Anecdotal viewing of the data reveals three distinct groups those participants that were not currently in a romantic relationship (the majority of the sample), a group that was very satisfied with their relationship with scores in the low thirties and finally a small group with scores in the mid twenties who were involved in a relationship however did not find their current relationship very fulfilling. The lack of any significant correlation may be due to the fact that the majority of the participants were not involved in romantic relationship at the time of the study. When the data for only those participants that were currently in a romantic relationship were correlated with general intelligence there was still no significant correlation, however this may be due to the small size of the (participants in a relationship) sample (n=36).

Academic goals

There was no significant correlation found between general intelligence and academic goals. This lack of significant correlation is contrary to the expected positive correlation as found by Berry and West (1993). The rationale behind this

prediction was that individuals who had a high general intelligence level would usually receive high grades, so their expectations would be to receive high grades in the future thus their academic goals would be higher than individuals with lower levels of general intelligence.

The lack of a significant correlation between general intelligence and academic goals may be due to the fact that the sample population was comprised solely of undergraduate tertiary students. University courses at this level are highly organised and regimented. Goals are outlined by individual courses so all of the participants in the research had a long list of academic goals set out that they were required to complete. In regard to the grade the participants hoped to achieve, most students responded with a high score. This means that the students in this sample had high expectations so it is likely that the participants were going to put in a large amount of effort toward achieve their academic goals. Not many of the students were expected to respond that they would try a relatively low amount to achieve their academic goals. All tertiary students have goals that are decided by the course they are engaged in, so all of the students responded highly to the goals measure. Because of the mandated goals imposed by the university there was not a large amount of variation in terms of setting and monitoring goals, perhaps if the study sample included a wider variety of young people such as those in full time employment there would have been a wider range of goals (Sackett et al., 2002). For undergraduate tertiary students there was no significant correlation between general intelligence and academic goals. This result may be surprising because intuitively intelligent individuals are often thought of as being highly motivated and goal orientated.

There was a significant positive correlation observed between academic goals and life satisfaction. This was the expected result for hypothesis H3b. This relationship is echoed in the research by Yetim (1993), which concluded that goals of students had meaningful effects on life satisfaction. Fugl-Meyer et al.(1991) found that both expressive goals and spare-time goals were significant predictors of life satisfaction. The Fugl-Meyer study found that goal setting was a significant factor in regard to life satisfaction for both older and younger sample groups.

As outlined in the introduction, setting and achieving goals leads to increased levels of life satisfaction. Because this was a sample of undergraduate tertiary students a large amount of their time and focus was expended on their studies and many of their short to medium term goals were related to achieving good grades and completing their qualifications. The results of the current study demonstrate that for tertiary students focussing and setting goals has a significant positive relationship with overall life satisfaction. Furthermore setting and monitoring short to medium term goals is an activity that is achievable by anyone, this is the research variable that is the easiest to utilize which displayed a significant positive correlation with life satisfaction in the current study. Instituting a program that encourages tertiary students focus on academic goals would not require large amounts of time or money and may result in significantly higher levels of life satisfaction.

Academic performance

There was no significant correlation between academic performance and general intelligence which is a contradictory finding to the results of previous research such as, Stone (1999a). Stone found that there was a significant

correlation between the same intelligence test as used in this study, and grade point averages for American college students. An explanation for this lack of correlation may be that because the participants in this study all had high enough intelligence levels to gain entrance into university they were all at least moderately intelligent, and that effort put toward study is a more important factor when it comes to academic performance.

Duckworth and Seligman (2005a) found that self discipline had a far greater impact on final grades than IQ. The amount of effort and discipline put toward studies may be far greater at predicting academic performance than general intelligence level. Farside and Woodfield (2003) concluded that previous research on the relationship between intelligence and academic performance was mixed and that motivation of students and personality type may indeed be greater predictors of academic success. In this study there was no correlation found between intelligence level and academic performance, so individuals who do not have a high general intelligence level may still be able to achieve highly academically.

Perhaps if the academic performance measure looked at performance as a more general term (such as performance in both work and scholastic settings) there may have been more variation in the responses instead of focussing solely on the marks that the participants achieved. Duckworth et al. (2006) concluded that self discipline was a more important factor than general intelligence in determining grade point average. Perhaps general intelligence is not an important factor when it comes to academic performance, it could be that motivation and study are far more important factors in determining academic success than underlying cognitive ability. Previous research such as Stone (1999) found a

significant positive correlation between academic performance and intelligence with a very similar test population of American college students, however that was not the relationship found in the current study. The nature of the relationship between general intelligence and academic performance suggests that general intelligence has no relationship with academic success for individuals similar to those in the present study.

There was a significant positive correlation found between life satisfaction and academic performance, which is what was expected from previous research, (Bean & Bradley, 1986). It is expected that individuals who are involved in tertiary study would place an emphasis on their grades because in many ways it is the indicator of their level of success. Because tertiary study requires such a large time and energy commitment for students, it should come as no surprise that the participant's academic success rates have a significant positive relationship with their level of life satisfaction. An alternative explanation for the observed positive correlation is that high life satisfaction levels may boost an individual's confidence in their ability to achieve high grades. So individuals may become more actively engaged in study and their academic performance increases as a result. The nature of the relationship between academic performance and life satisfaction suggests that as academic performance increases so does life satisfaction.

Health status

Looking at previous research such as Ho et al.(1995), it was expected that there would be a positive correlation between intelligence level and health status. That was not found in this study, there was no significant correlation found between general intelligence and health status. Gottfredson and Deary (2002)

found that intelligence was related to health status, however their study looked at mortality rate and patients with severe health problems such as cancer. Perhaps a younger sample group has not had the required time to develop significant health problems and the sample of undergraduate students was on the whole a healthy group. So this may in fact be an area where a young sample population cannot be compared to an older population because they have not had the time to develop serious illness to the same degree. The nature of the relationship between health status and general intelligence is that there appears to be no relationship between these research variables for individuals similar to those in the current sample.

Hypothesis H5b was that there would be a positive correlation between health status and life satisfaction. This study demonstrated that there indeed was a significant positive correlation between health status and life satisfaction, which was expected from previous research (Ho et al., 1995). Healthy individuals may be more likely to engage in a number of physical activities that bring happiness, and may have the ability to spend time with friends and family. The ability to compete in sports, engage in pleasurable physical activities and the absence of pain from injury and disease may be likely to contribute to higher levels of life satisfaction. Spending time and effort to increase ones fitness level through exercise and monitoring and maintaining high levels of health is an effective use of time if having a high level of life satisfaction is an important factor.

Individuals who are in a poor state of health may be subject to ongoing pain which may lower their mood and over time lead to lower life satisfaction. Individuals who have a high level of health have the ability to engage in activities that they derive pleasure from, this may lead to an increase in satisfaction with life. Being in good physical health may be due to exercise, exercise releases

endorphins and other feel good chemicals in the brain which result in short term happiness, which with high frequency may lead to long term satisfaction (Taylor et al. 1994). Individuals who have the ability to engage in activities they enjoy and engage in exercise may be likely to have higher levels of life satisfaction than individuals who suffer from poor health and are unable to physically participate in some activities. The nature of this relationship suggests that as health status increases so does life satisfaction for individuals similar to those in the current sample group.

Religiosity

Religiosity was one of the life domains included in the research variables that was not measured by performance/success; rather it measured strength of belief. Religiosity was also the only research variable that was predicted to display a negative relationship with general intelligence. Based on previous research it was expected that the higher the religiosity level, the lower the level of general intelligence. However this was not found to be the case in this study. There was no significant correlation between general intelligence level and level of religiosity. There was also no significant correlation found between general intelligence and religiosity among fifteen to sixteen year olds by Francis (1998), this sample group is close in age to that of the undergraduate students in the current study. It may be the case that an older population group as found by Ellison (1991) differs from younger populations, in that there is a significant correlation for an older sample, where one does not exist for younger people. A greater percentage of young adults aged eighteen to twenty nine years old claim to have no religious affiliation than older adults aged thirty to fifty five (Grossman, 2010). The majority of first world countries including New Zealand have a growing number of atheists, due mainly to young adults (Jagodzinski & Greeley,

2010). So it may be that younger people are not as religious as previous generations, so religiosity may not be an important factor for this section of society. The nature of this relationship suggests that there is no relationship between religiosity and general intelligence for individuals similar to those in the present study.

The second expected relationship for religiosity was that it would be positively related to life satisfaction. Again there was no significant correlation between level of religiosity and life satisfaction. An explanation for why individuals in previous studies have been found to have higher levels of life satisfaction may be due to social contact, individuals who are heavily involved with religion often spend more time with members of their religion and time with family and religious gatherings (Zuckerman, Kasl, & Ostfeld, 1984). Because this sample was comprised entirely of undergraduate students there was already a high amount of social contact. Previous studies such as Levin, Chatters, and Taylor (1995a) focused on an older population which resulted in a sample population that contained many retired individuals who may not have had specific reasons to spend time with other individuals, other than participating in religious activities, so it may be the case that studies that focus on older sample populations are in fact measuring social contact and not level of religiosity against life satisfaction. An alternate explanation is that older individuals take more comfort in religion and having views on the after-life as they are closer to the end of their lives than the beginning of their lives, where as younger individuals do not spend as much time contemplating death and therefore have less of a focus on religion and gain less comfort from thinking about what will happen when they die (Brym & Lie, 2007). So religiosity does not appear to have any correlation for young tertiary

students in this study. Young people may not think about death as much as older people perhaps because it is an issue that they have more time to contemplate.

If the study included a wider variety of participants there may have been a significant positive correlation observed because both older populations and individuals who do not have formal tertiary education have higher rates of religiosity (Lynn et al., 1998). The nature of this relationship suggests that there is no relationship between religiosity and life satisfaction for individuals similar to those in the current study.

Social contact

There was no correlation found between general intelligence and social contact this is contrary to what was predicted by Hypothesis H7a. It was predicted that there would be a positive correlation between general intelligence and social contact. A possible reason for the lack of correlation is the similarity of the responses for the social contact measure in this sample. This sample group was comprised entirely of university undergraduate students which means that they were required to attend lectures and tutorials and all of the participants had a relatively high amount of social contact, perhaps if correspondent students were included in the sample there may have been a wider range of responses, as they would not be required to have such a high level of contact with people. The nature of this relationship suggests that there is no relationship between the amount of social contact an individual has and their level of general intelligence, for individuals similar to those in the present study.

Previous research, including Matire (1999) and Simonsick et al. (1998) predicted that there would be a positive correlation between life satisfaction level and social contact; however this study did not find any significant correlation. An

explanation that may be appropriate here is that the very nature of the sample population was comprised completely of undergraduate students who are required to come into contact with a large number of people, which means that it is likely that all of the individuals in the sample had a high degree of social contact. A more diverse sample population may have found a correlation, such as the older samples that were used in previous research, which contained a larger number of respondents that had a much lower level of interaction with other individuals. The same finding was made by Conner, Powers and Bultena (1979), who found that there was no correlation between both the number of people interacted with and the frequency of interaction, and life satisfaction. So it appears that social contact is not a significant factor in regard to life satisfaction for tertiary students. An alternate explanation may be that the current study may have obtained a sample group of participants who all had high levels of social contact and while students with low levels of social contact may exist, they may not have participated. The nature of this relationship suggests that there is no relationship between life satisfaction and social contact for individuals similar to those that participated in the current research.

The measure of social contact in the current study was comprised of questions that dealt with frequency of social interaction and did not tap constructs such as the length or quality of the interactions. Perhaps the nature and quality of the social contact are more relevant research variables in regard to life satisfaction levels than frequency of interaction alone. Success or satisfaction within social interactions may have a positive correlation with life satisfaction; however in the current study social contact frequency had no relationship with life satisfaction.

Practical implications of research

This section discusses possible practical implications of the relationships found between the research variables and life satisfaction in relation to tertiary students. This research provides information on the interactions between success (performance) in a variety of different life domains with life satisfaction. New information about the relationships between a number of life domains that significantly correlate with life satisfaction results in a greater understanding of the previously established relationships in context with a wide variety of life domains. The relative importance of life domains in comparison to academic success, may allow tertiary education providers the ability to place focus on areas of student life that display significant relationships with life satisfaction.

Cote and Miners (2006) concluded that there was a significant positive correlation between intelligence and performance. This conclusion was supported by the work of Hunter and Schmidt (1996), who concluded that general intelligence was found to be the major factor of the differences in work output between individuals. In these two studies intelligence was found to be the major reason for an individual's performance level. Hunter and Schmidt theorized that the reason for this was because of an individual's ability to learn and retain new information. Theoretically the observed relationship in Hunter and Schmitt should have transferred to a relationship, where students with higher general intelligence will have a high positive correlation in multiple life domains, because a higher level of general intelligence would allow for a higher level of achievement or performance across a broad range of activities. Surprisingly that was not the case for the current sample group of students, general intelligence level was found to have no correlation with success in any of the life domains. This may be an area in which this specific sample group of tertiary students had a narrow range of

intelligence scores, where in the general public a greater range of general intelligence levels may yield a significant positive relationship between general intelligence and work performance (Sackett et al., 2002). This means that practically the intelligence level of students should be discounted when organising different university parameters, as the similarity of the population to one another may render general intelligence as a variable inconsequential.

When looking at all the different relationships between general intelligence, satisfaction and performance, the spill-over model is often discussed. The spill-over model refers to the fact that all facets of an individual's life are interrelated and what happens in one part of life will effect another (Grunberg, Moore, & Greenberg, 1998). There may be a separation between university-life and home-life in the minds of students, however the spill-over model states that the two major areas of an individual's life are interlinked and actions in one area will have flow on effects with the other. This model supports the idea that a large number of factors have relationships with an individual's life satisfaction level. Increasing an individual's level of success in a number of life domains may lead to an increase in overall life satisfaction, which through spill-over may lead to an increase in satisfaction with tertiary life. All of an individual's different life domains are intertwined and related, improving satisfaction and performance in one domain may have positive interactions with other life domains.

Jones (2006) looked at a number of the relationships that have been included in this study and theorized on the possible uses of the previous findings in an organizational setting. Jones concluded that using information on life satisfaction ratings was useful, as it was a predictor of extra mural effort, such as helping peers. The Jones research relates to a tertiary student population in that

universities are organizations, whose primary goal is to attract future students. The most effective way to attract students is to have successful and satisfied graduates that raise the reputation of the university based on their level of academic and life success (Athiyaman, 1997). Graduates that are satisfied with their university experience may leave feeling that they have effectively learned information that relates to their future success and that they had the resources and support necessary to achieve highly during their studies. Aside from the purely academic aspects of student satisfaction an important area to consider is the social experience of university life, feeling connected to peers and having pride in the university that they are studying at may lead to high levels of life satisfaction (Athiyaman, 1997). Perhaps universities should put an emphasis on increasing student's life satisfaction as a whole by means of extracurricular activities and events. Perhaps an increase in scholastic performance will correlate with higher levels of life satisfaction, and a high level of engagement in university life/activities may positively correlate with academic performance.

By gaining new information on which research variables correlate positively with life satisfaction for a young population, it may be possible to change organisational structures to better facilitate those variables that displayed a positive relationship with life satisfaction and in turn increase organisational citizenship behaviour and performance. Goal setting may be the easiest significant research variable to change in a university setting. Increasing students focus on goal setting and achievement may result in higher levels of life satisfaction and academic performance. These are the relationships that were found in the current study where higher levels of goal setting correlated positively with academic performance and both academic goals and academic performance had positive relationships with life satisfaction.

Health status of individuals is determined by a complex mixture of factors (genetics, lifestyle, exercise, diet) however there are easy changes universities can make to improve the health levels of students such as making sure there is an availability of healthy food options, organising activities that involve exercise, and perhaps subsidising medical care and gym memberships. An improvement in health will lead to less time spent experiencing physical pain or involved in medical treatment, allowing higher attendance levels and a greater focus on academia. A population of healthy, physically fit, engaged students may result in a better image for the university which may attract greater numbers of students in the future.

The current research draws together a large number of different life domains and correlated them with life satisfaction for a single sample. The conclusions may provide useful information on life satisfaction in regard to younger population groups and more specifically undergraduate tertiary students. The aim of this study was to establish a model of life satisfaction for a young population group, which displays which factors have a significant relationship with life satisfaction, to add to the research in this area. The life domains that do display significant relationships with life satisfaction may be better facilitated by organisations that have a large population of young people such as universities, because of the positive benefits relating to academic performance and the flow-on effects such as organisational citizenship behaviour.

The current study was comprised solely of undergraduate students, thus the organisation type that the findings are most applicable to are universities. The life domains that were found to have significant positive correlations with life satisfaction were romantic relationship, academic goals, academic performance

and health status. With this in mind it may be advantages to institute programs with these life domains in mind to allow greater life satisfaction levels for students. Encouraging students to set and monitor goals may be the simplest way to easily improve the lives of students, and as there was also a positive relationship observed between academic goals and academic performance, it may be that a greater focus on goals is an effective use of time and resources in regard to grades and satisfaction.

Strengths of present research

As far as I could locate there have not been any studies on life satisfaction that focussed on a young population group in New Zealand. This study not only adds information about correlations with life satisfaction for young people but for the first time focuses on a New Zealand population. The sample population may be limited, in that findings are most applicable to a New Zealand population of tertiary students, however this study also ads information on a population that is not based in the United States of America (which are the majority of studies that focus on life satisfaction). Many of the results in this study differ from what have been found in previous studies that focused on older populations. This is the first study that looked at the role of general intelligence in relation to the other research variables in this study, and now that it has been demonstrated that there is no correlation between general intelligence (in the current study) and any of the other research variables, the general intelligence variable may be discounted from future research and perhaps other research variables may be included in place.

Limitations

There were 129 students that participated in the research. The low number of participants may bring in to question whether the sample was truly

representative of the target population as a whole. The students who are most active or high achievers may be the individuals that are expected to participate in research. However in the current study any possible impact of a high achiever skew was lowered by the fact that some students who were not performing well in the class would want to gain the extra percentage point for participation. Many of the high achieving students did not qualify for the participation mark as they had already received their maximum participation marks for the semester, and so did not participate in the research. There were sixteen students that responded to the advert via email to enquire whether there were any other incentives in addition to the participation mark because they had already received their maximum number of participation marks for the course. Because these students had already achieved their maximum participation marks for the semester it may be assumed that these students were highly engaged in their studies and may have been high achievers. These sixteen students did not participate in the research. The high achiever effect may have also been reduced by the random nature of the snowball sample, which introduced a large number of students who did not qualify for the course credit. A larger sample size of three hundred or more participants and a higher response rate of fifty percent or more, may have given more validity that the sample population accurately measured the entire population of undergraduate students.

There are always inherent limitations of self report measures such as social desirability bias (Presser & Stinson, 1998). With the exception of the ACER Word Knowledge Test all of the research variables included in the survey (Figure 1) were self report measures. Although a number of steps were taken to ensure anonymity, such as assuring the participants that their names would remain separate from the data so that no individual could be indentified with any response, the desire to portray one's self in a positive light is inherent (Presser &

Stinson, 1998). Deaton (2008) found that,"...the lack of correlations between life and health satisfaction and health measures shows that self-assessed life or health evaluations cannot be regarded as useful summary indicators of human welfare in international comparisons." (p. 53). The Deaton research concluded that self rated levels of health status may not always be as accurate as those conducted by a health professional. However Epstein, Hall, Tognetti, Son, and Conant (1989) demonstrated that self rated health was a good estimate within a similar group of individuals. So the data for the current study should only be used in reference to a similar population, the results are not transferable to different population groups.

Common Methods Bias may be a concern in the present research as the research variables were measured using a single source, this means that there is no evidence that the construct is being measured in totality rather than just a part of the construct (Doty & Glick, 1998). The only way to be certain that a construct is measured in its entirety is to have two different measures that purport to measure the same construct and conduct a correlation between the two measures to be certain that construct is being measured in its entirety, however that would have resulted in the survey being at least twice as long to complete and run the risk that the participants would have begun to randomly fill out their responses because of fatigue.

Range restriction may be a concern when it comes to the generalisability of the results to the general population. The nature of this sample brings with it range restriction, this range restriction may be due to the fact that all of the participants were tertiary students attributes such as the intelligence level, social contact level and health status may be very similar as these participants qualified for entry into university and were at the time of the data collection involved in full

time study and so may have had very similar lifestyles. If the sample group contained a more diverse population of young people, such as individuals that did not attend university there may have been a greater range of responses in all of the research variables (Sackett et al., 2002).

Future Research

Life satisfaction is currently dominated with research that focuses on geriatric population samples, there needs to be a greater focus on young people, as more information about life satisfaction can be used to change aspects of an individual's life at an early stage to perhaps bring about greater levels of life satisfaction over a longer period of time. Future research that focuses on young population groups and satisfaction should widen their focus to include a broader test sample (not just tertiary students). A causal study could also provide valuable information into increasing life satisfaction levels of individuals in work settings to see if there is a significant effect on productivity and other work behaviour. Self- discipline leads to success in multiple life domains, which in turn will lead to greater life satisfaction, (Tangney, Baumeister, & Boone, 2004). It may prove worthwhile if future research contains a measure that looks at effort put toward succeeding in a number of life domains. Deaton (2008) found that life satisfaction is strongly correlated to per capita national income, and that each doubling of income is associated with a one point increase in life satisfaction on a ten point scale. Well-being is U-shaped in age, satisfaction levels are high in youth and the elderly but are lower during middle age (Blanchflower & Oswald, 2004). Blanchflower and Oswald found an interesting relationship between age and life satisfaction, satisfaction levels were high for the young and for the old, but were lower for the middle age of the sample population. Future research should

generally broaden the group of participants and include more demographic data, a wide age range, and measures on income level and motivation.

Conclusion

In conclusion, data from the present study displayed a positive relationship between life satisfaction and success in a number of life domains including health status, romantic relationship, academic performance and academic goals for this sample of tertiary students. Because the target population was entirely comprised of tertiary students it should come as no surprise that academic goals and academic performance were two of the research variables that displayed significant positive correlations with life satisfaction. Time and energy are limited resources, a better understanding of the areas of an individual's life that contribute to life satisfaction will allow greater focus on the areas that most contribute to overall life satisfaction. Overall life satisfaction is correlated with a number of sought after behaviours such as high work performance and success in a number of other life domains. Focus on best utilizing our personal resources will in turn lead to a better work life balance, higher levels of satisfaction and finally increase productivity and behaviours such as organisational citizenship behaviour, which benefit entire organisations.

Romantic relationship, academic goal setting and achievement, and health status all correlated positively with life satisfaction for this young sample group. The area that perhaps has the greatest possibility to be better utilized is goal setting and achieving goals. In an organisational context when dealing with new staff that are recent graduates of tertiary education it may be advantageous to set concrete short term goals that are achievable, this may lead to greater life satisfaction. It was also found that general intelligence had no significant

correlations with any of the other research variables. Intelligence tests are often used as a screening tool for staff selection, but the results of this study display that there is no correlation between the intelligence level of an individual and their success in multiple life domains or with their level of life satisfaction. Perhaps instead of the all too common intelligence test as a means of staff selection, a commitment and/or motivation tools could be instituted, as it may be a superior predictor of future job performance. There was no significant relationship between general intelligence and success in any of the life domains. It appears that you do not have to have a high general intelligence level to be successful; it may be beneficial but is not a crucial factor. So an individual's internal motivation may be a far better predictor of future performance than an intelligence test.

Healthy and happy and ignorance is bliss, were two of the proverbs that the introduction began with. This study found that there is a correlation between health and happiness and there is no significant correlation between intelligence level and life satisfaction. Success in a select number of life domains (romantic relationship, health status, academic goals and academic performance) had positive relationships with life satisfaction; but directionality of the relationships cannot be established in the current study, success in life domains may lead to higher life satisfaction or life satisfaction may lead to success in life domains.

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Appendix 01

Satisfaction with Life Scale and Correlation Factors.

Set Number: **Age:**

Below are statements with which you may agree or disagree. Using a 1 to 7 scale, indicate your agreement with each item by placing the appropriate number in the box next to that item. Please be open and honest in your responses. The 7-point scale is:

1 = strongly disagree

2 = disagree

3 = slightly disagree

4 = neither agree or disagree

5 = slightly agree

6 = agree

7 = strongly agree

1. In most ways my life is close to ideal. ☐

2. The conditions of my life are excellent. ☐

3. I am satisfied with my life. ☐

4. So far I have got the important things I want in life. ☐

5. If I could live my life again, I would change almost nothing. ☐

For the next set of questions use the scale below each question.

6. How do you regard your health? ☐

1 = Very Poor

2 = Poor

3 = Quite Poor

4 = Neither good nor poor

5 = Quite Good

6 = Very Good

7 = Excellent

7. How would you assess your general health status compared to that of others of your own age? ☐

1 = Much Worse

2 = Slightly Worse

3 = Neither Better nor Worse

4 = Slightly Better

5 = Much Better

8. What is your health status? ☐

1 = Poor

2 = Rather Poor

3 = Average

4 = Fairly Good

5 = Good

9. What is your level of fitness compared to your peers? ☐

1 = Worse

2 = About the same

3 = Better

10. Do you have a chronic disease, impairment or handicap? ☐

1 = yes

2 = no

If you are not currently in a romantic relationship go to question 19.

11. How long have you been in this current relationship? ☐

1 = less than four months

2 = 4 to 11 months

3 = more than 11 months.

On a 1-5 scale, 1 representing low, 3 representing medium and 5 representing high, answer the following questions.

12. How well does your partner meet your needs? ☐

13. In general, how satisfied are you with your relationship? ☐

14. How often do you wish you hadn't gotten into this relationship? ☐

15. How good is your relationship compared to most? ☐

16. To what extent has your relationship met your original expectations? ☐

17. How many problems are there in your relationship? ☐

18. How much do you love your partner? ☐

For the following questions use this scale:

1= Never, 2= Once a year, 3= Once a month, 4= Once a week, 5= Everyday.

19. How frequently do you attend religious or spiritual service? ☐

20. How frequently do you pray or spiritually practice in private? ☐

On a five point scale, 1 representing very low to 5 representing very high, answer the following questions:

21. How strong is your religious or spiritual orientation? ☐

22. How close are you to god or a higher force? ☐

23. How frequently do you experience affective spiritual experiences? ☐

For the following questions TICK the box below each item.

24. On average I am achieving a _ grade during this semester.

C	C+	B-	B	B+	A-	A	A+

25. What is your goal for an average grade across all papers, that you realistically hope to attain next semester?

C	C+	B-	B	B+	A-	A	A+

For the next set of items, on a 7 point scale, 1 representing strongly disagree to 7 representing strongly agree, answer the following items.

Regarding the average grade you hope to achieve in A semester.

26. It's hard to take this goal seriously. ☐

27. It's unrealistic for me to expect to reach this goal. ☐

28. It's quite likely that this goal may need to be revised, depending on how things go. ☐

29. Quite frankly, I don't care if I achieve this goal or not. ☐

30. I am strongly committed to pursuing this goal. ☐

31. It wouldn't take much to make me abandon this goal. ☐

32. I think this goal is a good goal to shoot for. ☐

33. I am willing to put in a great deal of effort to achieve this goal. ☐

Answer the following questions using the scale below each question.

34. What is your living arrangement? ☐

1 = Alone

2 = With spouse

3 = With non-spouse others

35. How often do you have in-person social contact with non-household members? ☐

1 = <1 time/week

2= 1-3 times/week

3= 4-6 times/week

4= 7-9 times/week

5= >9 times/week.

36. How frequently do you leave home? ☐

1 = <1 time/week

2= 1-3 times/week

3= 4-6 times/week

4= 7-9 times/week

5= >9 times/week.

37. How many relatives do you feel close to? ☐

1 = 0

2 = <3

3 = 3-5

4 = 6-9

5 = more than 9.

38. How many relatives do you see or hear from at least once a month? ☐

1 = 0

2 = <3

3 = 3-5

4 = 6-9

5= more than 9.

39. Do you have any close friends? ☐

1 = no

2 = yes.

40. How many of these friends do you see or hear from at least once a month?

1 = 0 ☐

2 = <3

3 = 3-5

4= 6-9

5= more than 9.

Appendix 02

What are the factors that determine tertiary student life satisfaction?

PSYC103 - 10A Students needed for sample population.

Want a 1% Course Credit for 30 minutes of activity?

What is the research about?

This study is looking at the determining factors that have an effect on life satisfaction for a young population group. The determining factors include general reasoning ability, social contact, romantic relationship, goals, health, academic performance and religion.

What will I be doing for 30 minutes?

Participants will meet in a lecture room in one of the FASS buildings, in groups of 20-25 students. First participants will be asked to read and sign consent forms which will take 2 minutes. Next participants will complete a general intelligence test, (the ACER Word Knowledge Test) with a time limit of 10 minutes. Finally participants will fill out a survey which contains the Satisfaction With Life Scale as well as determining factors questions; this should take about 10 minutes. What about the remaining 8 minutes I hear you ask? Well that's so you have time to ask any questions that you would like. (Feel free to leave if you don't have any questions).

How to sign up?

Just email your name and student ID number (to the researcher) and you will be contacted as soon as the session times are finalized, sessions will be conducted in the third week of the semester, there will be 5 sessions to choose from.

If you have any questions about the study or how to participate, feel free to contact either Jerode Raman or Dr. Donald Cable.
Researcher: Jerode Raman, Email: groadthefunk@gmail.com
Supervisor: Dr Donald Cable, Email: dcable@waikato.ac.nz

Appendix 03

What are the factors that determine tertiary student life satisfaction?

Participant information sheet.

This study is looking at the determining factors that have an effect on life satisfaction for a young population group. The determining factors include general reasoning ability, social contact, romantic relationship, goals, health, academic performance and religion.

The purpose of this study is to achieve a greater understanding of the relationship between life satisfaction, general intelligence and other factors for a young population group.

Participants will be asked to read and sign consent forms.

Next participants will complete a general intelligence test, (the ACER Word Knowledge Test) with a time limit of 10 minutes. The ACER Word Knowledge Test consists of 72 questions that require the matching of a word, to another word with a similar meaning from five possible options.

Finally participants will complete a survey which contains the determining factors. If you have any questions feel free to ask them at any time during or after the test administration. There will be no personal identification information contained on the general reasoning test or on the determining factors survey. When completing the test it is your responsibility to try to achieve as many correct answers as possible within the allotted time limit. You are also required to answer the survey as honestly as possible, remember there is no way of connecting any piece of information gathered to any individual participant. Your privacy and confidentiality will be maintained during and after this study takes place. If you wish to withdraw you may do so without loss of the course credit and without providing a reason.

A summary of the results of the study will be emailed to you as soon as they are completed. If you would like more information don't hesitate to email the researcher for more information.

If you have any complaints or queries you may ask the researcher directly or through email. If you do not feel comfortable addressing the researcher you may contact Dr Robert Isler or Dr Donald Cable.

Researcher: Jerode Raman
Email: groadthefunk@gmail.com

Supervisor: Dr Donald Cable

Email: dcable@waikato.ac.nz

Convenor of the Research and Ethics Committee: Dr Robert Isler

Email: r.isler@waikato.ac.nz

This study has been approved by the Dept of Psychology Ethics Committee.

Appendix 04

Participant Consent Form

Research Project Title: Tertiary Student Life Satisfaction: Correlation Factors.

1. I have read the Information Sheet for this study and have had details of the study explained to me.

2. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

3. I also understand that I am free to withdraw from the study at any time, or to decline to answer any particular questions in the study.

4. I agree to provide information to the researchers under the conditions of confidentiality set out on the information sheet.

5. I wish to participate in this study under the conditions set out in the Information Sheet.

Participant's Name: _____

Participant's Signature: _____

Date: / /

Email: _____

Researcher's Name: **Jerode Raman**